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# CURRENT ECONOMIC COMMENT

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## CONTENTS

Retail Inventories as a Factor in Business Cycles . . . . . 3

RICHARD M. HILL

Professors, Physicians, and Unionism . . . . . 13

MELVIN LURIE

For More Adequate Measurement of Unemployment . . . . . 21

PHILIP EDEN

Population, Migration, and Regional Economic Development . . . . 31

CHARLES L. LEVEN

A Theory of the Declining Buick . . . . . 43

WALTER WILLIAMS

The Concepts of Economic Stability and Economic Growth . . . . 51

BETTY G. FISHMAN

### Books Reviewed:

ABRAMOVITZ AND OTHERS, *The Allocation of Economic Resources*..... M. Bronfenbrenner

DEWEY, *Monopoly in Economics and Law*..... Royall Brandis

MEIER, *Modern Science and the Human Fertility Problem*..... Robert J. Wolfson

MOUZON, *International Resources and National Policy*..... Howard G. Roepke

SHUBIK, *Strategy and Market Structure*..... Donald Dewey

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# Retail Inventories as a Factor in Business Cycles

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THE CURRENT STATE of business gives rise to much speculation about the factors which trigger and sustain downward movements in economic activity. Students of business cycles will not demand documentation for the statement that the role of inventories in business fluctuations has only recently attracted serious attention. Current interest in the inventory problem has resulted in a number of excellent studies. However, these investigations have typically been concerned with aggregate or manufacturers' inventories rather than with inventories held by distribution agents. Yet during the period spanned by the three cycles in general business from 1938 to 1954, wholesale and retail inventories together averaged about 42 percent of total inventory investment. Inventories held by retailers represent the larger part of this figure.

The behavior of retail inventories therefore has some bearing on movements in aggregate inventories. Hence, it may be presumed that cyclical fluctuations in retail inventories also have some bearing upon cycles in general business. A better understanding of this relationship should contribute to a better understanding of the business cycle itself.

## Measuring Cyclical Relationships

Aggregate end-of-month retail stocks,

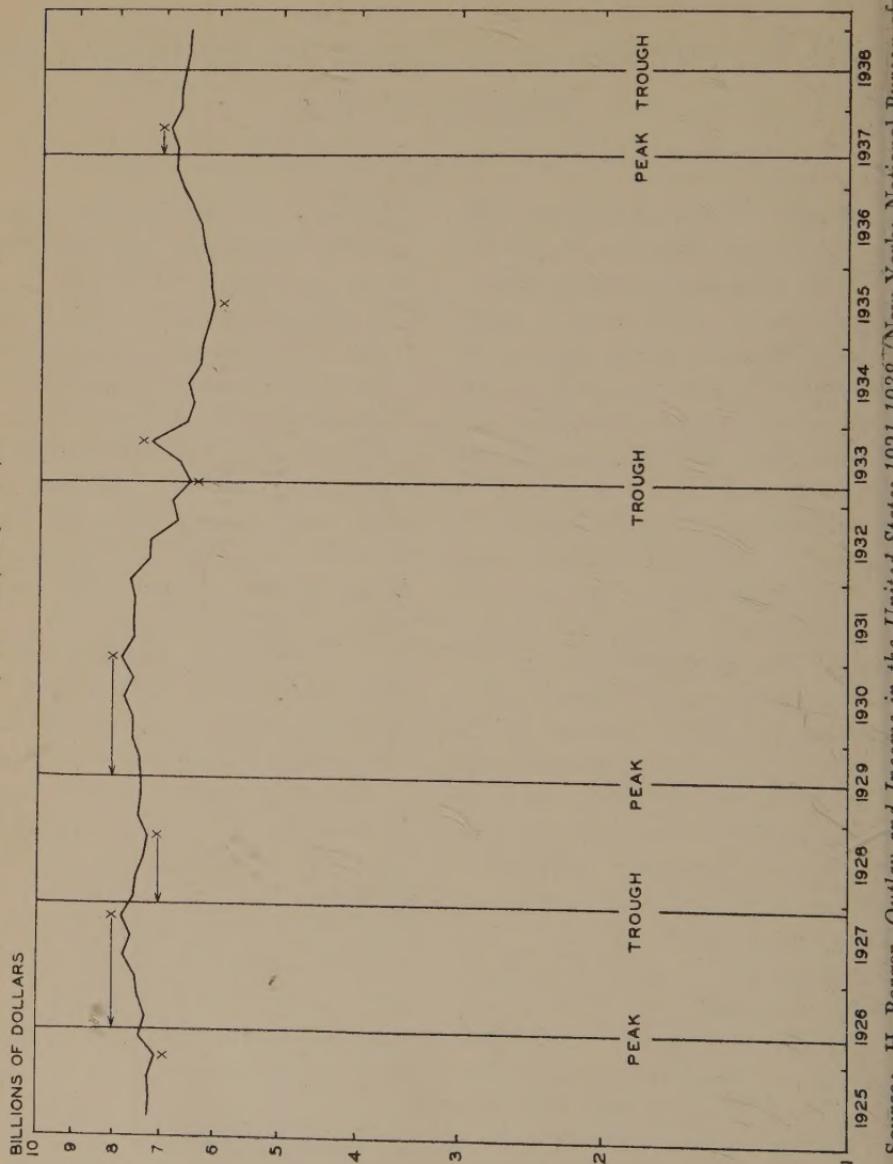
together with the durable and non-durable components of the aggregate figure, are plotted in Charts 1 and 2. The Department of Commerce monthly retail series do not go back beyond 1938. However, for the added meaning they may provide, Barger's estimates of aggregate retail stocks during the 1925-38 period have been included in the initial analysis. In both the Department of Commerce estimates and those of Barger, the valuation basis employed is cost or cost equivalent.

These series are presented in a way which distinguishes their behavior during expansions and contractions in general business. The peaks and troughs of the specific cycles<sup>1</sup> in each series are indicated by X's.<sup>2</sup> Expansions and contractions in business are marked off according to the standard monthly chronology of the National Bureau of Economic Research. These expansions and contractions in business at large are called reference cycles and the dates of their peaks and troughs are referred

<sup>1</sup> In accordance with the terminology of the National Bureau of Economic Research, periodic movements of rise and fall which are peculiar to a seasonally adjusted series are referred to as the "specific cycles" of the series. See A. F. Burns and W. C. Mitchell, *Measuring Business Cycles* (New York: National Bureau of Economic Research, 1947), p. 24.

<sup>2</sup> In general, the lowest and highest points of a plotted curve are taken as the troughs

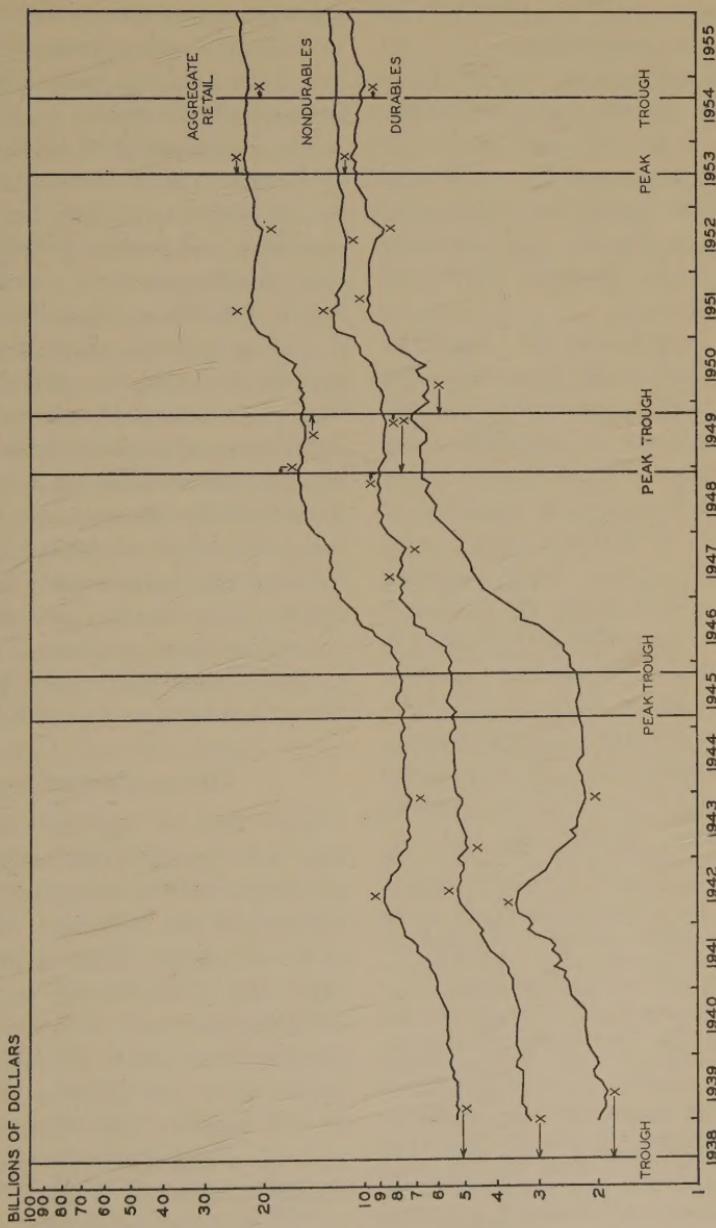
Chart 1. Aggregate Retail Inventories, Barger's Quarterly Estimates, 1925-38  
 (Seasonally adjusted)



Source: H. Barger.

Opinion and Income in the United States 1929-1931 (New York: National Bureau of Economic Research).

Chart 2. Major Retail Inventory Components, Department of Commerce Monthly Estimates, 1938-55  
 (Seasonally adjusted)



Source: U. S. Department of Commerce.

to as reference dates. The relationship between cycles in retail inventories and business cycles may be described by means of two comparisons: (1) the degree of coincidence between the turning points of specific cycles and reference dates, and (2) the nature of conformity between specific cycles and reference cycles. In making these comparisons the techniques used are those developed at the National Bureau of Economic Research.

Timing comparisons are made by matching specific-cycle turns with turns in general business to which they appear to correspond. To eliminate from the comparisons those specific-cycle movements which may be presumed to be unrelated to business cycles, turns separated by more than eighteen months are considered as noncorresponding. Also, a specific-cycle peak is not regarded as corresponding to a peak in general business (or a specific-cycle trough to a general business trough) if there is another turn of either type, i.e. specific-cycle or general business, between them. Such rules are ad-

and peaks of its cycles. In some instances the dates of these turning points are fairly clear, but in others they are obscured by erratic and secular movements. In order to place the selection of turning points on a reasonably objective basis, a few simple rules were followed. First, a rise and fall in series was not classified as a cycle unless its duration, measured either from peak to peak or from trough to trough, was at least fifteen months. Fluctuations lasting less than two years were scrutinized with especial care. Such movements were not treated as cycles unless they were clearly defined and gave no evidence of being the result of an inadequate seasonal adjustment. Such rules, of course, leave much room for arbitrary decisions, but there is a good chance that they exercise enough discipline over judgment to minimize bias.

mittedly crude.<sup>3</sup> They serve only in general way to separate the cyclical movements in a series which are related to business cycles from others which are dominated by factors peculiar to the individual series.

The relationship of inventory cycles to business cycles is further indicated by the similarity or conformity of the expansion and contraction phases. Generally speaking, a series which rises during a reference expansion and falls during a reference contraction is regarded as being in conformity with these movements in general business. A series is considered to have risen during a reference phase if it is higher at the end of the phase than at the beginning, regardless of how it may have fluctuated in the interim. Conversely, a series which is lower at the end than at the beginning of a phase is considered to have fallen during the phase, and hence is in conformity with it.

### Timing Comparisons

The turns of specific cycles which have some presumptive claim of being connected with revivals and recessions in business are indicated in Charts 1 and 2 by arrows. Each arrow is drawn from the specific-cycle turn to the business-cycle turn with which it appears to correspond. The absence of an arrow at a specific-cycle turn means that it does not fall within the definition of a corresponding turn and no timing comparison is made.

<sup>3</sup> The National Bureau has a more detailed set of criteria which must be met before a specific-cycle turn is treated as corresponding to a given turn in general business. See Burns and Mitchell, *op. cit.* p. 118.

During the 1926-55 period there occurred six troughs and six peaks in general business — twelve turns in all. A turn in aggregate retail stocks is found in the vicinity of a turn in general business in the case of five peaks and five troughs. Of these ten turns at which comparisons can be made, aggregate retail stocks apparently turned later than general business eight times. With respect to the seven turns in general business during the 1938-55 period, a corresponding turn in nondurables is found only in the case of one peak and two troughs. On these three occasions nondurables apparently turned later than general business once; the remaining two turns occurred earlier than their corresponding turns in business. A turn in durable retail stocks is found to correspond to a turn in general business in the case of two peaks and three troughs. Of these five turns at which comparisons can be made, durables apparently turned later than general business on every occasion.

These findings seem to suggest that on the whole retail stocks tend to lag behind changes in general business. However, the degree of correspondence between specific-cycle turns and turns in business cycles is noticeably greater in the durable than in the nondurable category. Indeed, only a third of the specific-cycle turns in nondurables (three turns out of nine) can be said to correspond to reference turns.

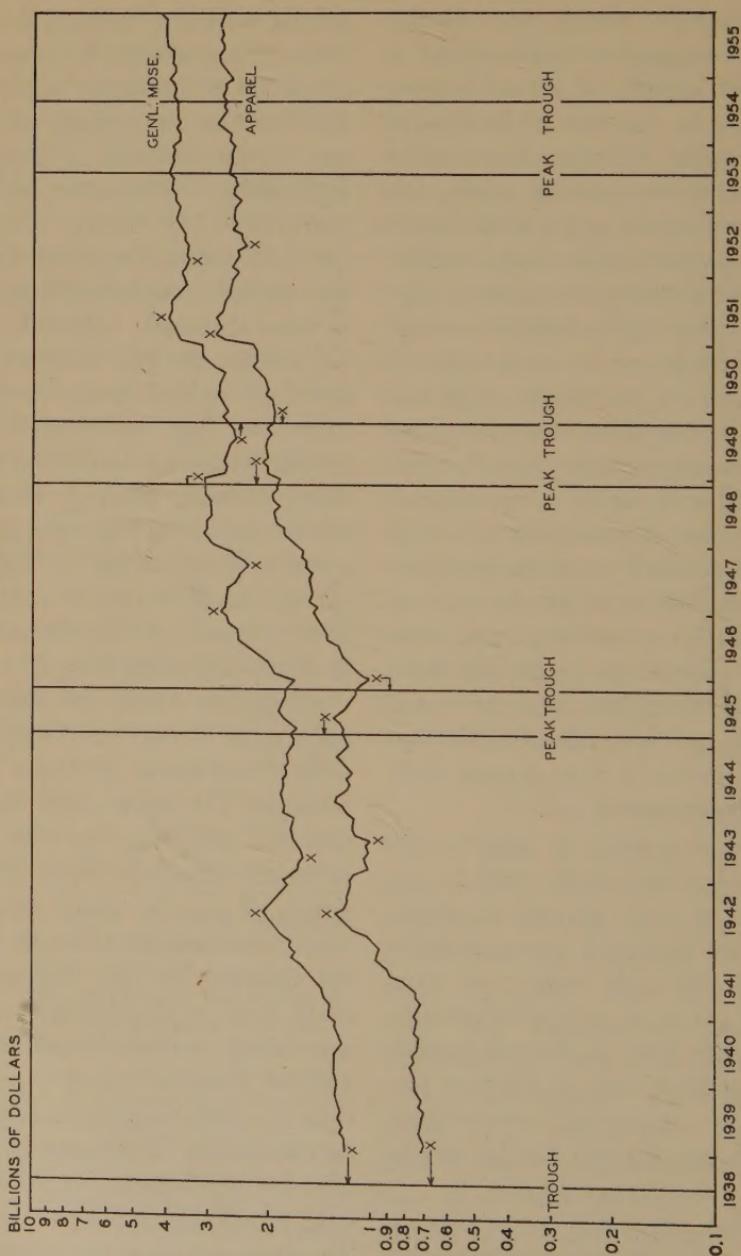
Since these series are composites of other series, a similar comparison of the major durable and nondurable constituent series is needed to bring this timing pattern into a little sharper focus. Unfortunately, very few continuous data are available concerning

the manner in which the value of total durables and nondurables is divided among different kinds of merchandise. There are available, however, continuous series of six major subcategories of durable and nondurable stocks; these are (1) automotive, (2) furniture and appliances, (3) lumber, building, and hardware, (4) foods, (5) apparel, and (6) general merchandise. When plotted on a semilogarithmic grid, each of these seasonally adjusted series shows discernible cyclical movements except the food series. In the case of foods, there was not sufficient evidence of specific cycles to warrant an attempt to select turning points. End-of-month book values of the remaining series are given in Charts 3 and 4. The comparison of specific-cycle turns to reference dates is made here in the same manner as in the preceding charts.

Altogether, there are eight specific-cycle turns in the two nondurable series which correspond to turns in general business. Of these eight turns, seven occurred later than the reference dates to which they correspond. The average length of time by which these specific-cycle turns lagged turns in business is 3.6 months. Of the thirteen specific-cycle turns in the durable series which are found in the vicinity of turns in general business, nine occurred later than the turns in business to which they corresponded. The average length of time by which these turns lagged turns in general business is about five months. The four specific-cycle turns which led general business preceded these turns on the average of 1.5 months.

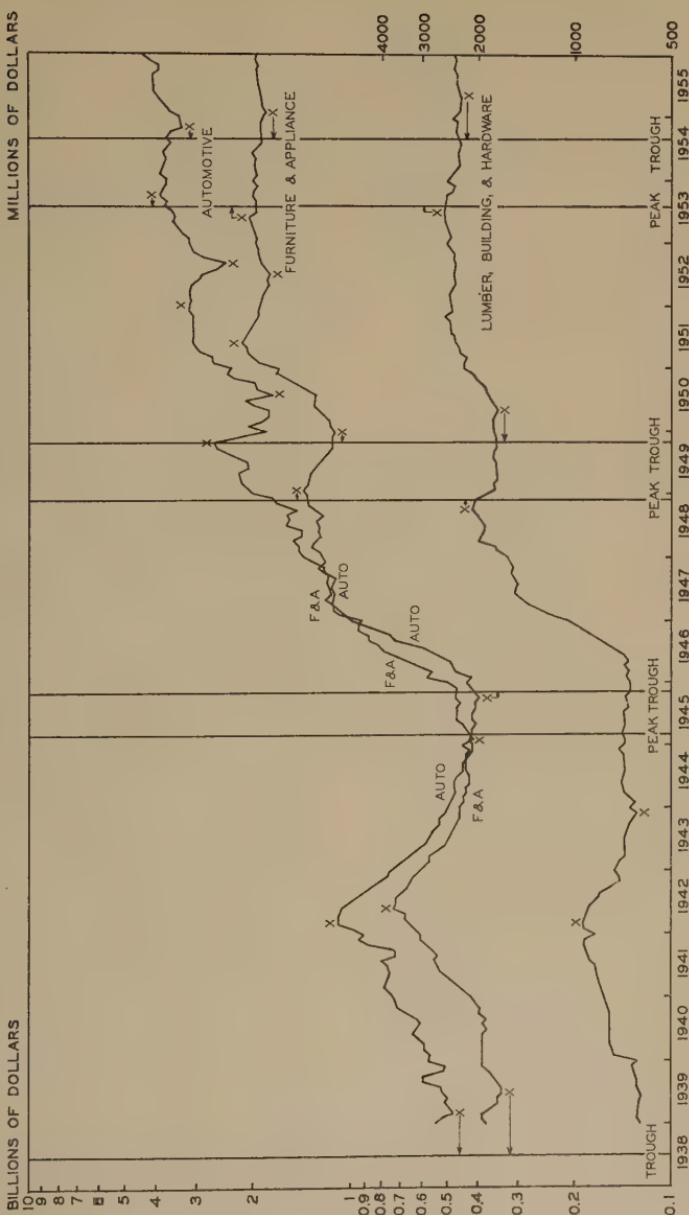
These timing comparisons are summarized in Table 1. The greater number of times that specific-cycles turned

Chart 3. Monthly Estimates of Inventories in the Major Retail Nondurable Divisions, 1938-55  
 (Seasonally adjusted)



Source: U. S. Department of Commerce.

Chart 4. Monthly Estimates of Inventories in the Major Retail Durable Divisions, 1938-55  
 (Seasonally adjusted)



Source: U. S. Department of Commerce.

Table 1. Timing of Specific-Cycle Turns Corresponding to Turns in General Business, Major Retail Divisions, 1938-55

Group	Number of corresponding specific-cycle turns	Corresponding turns as percent of total specific-cycle turns	Relation to turns in general busi			
			Number of turns		Average num of months**	
			Lead	Lag	Lead	Lag
Automotive.....	4	44.4	1	3	1	4
Furniture and appliance.....	5	55.5	1	4	2	5
Lumber, building, hardware.....	4	66.6	2	2	1.5	7
Apparel.....	5	55.5	0	5	0	3
General merchandise.....	3	33.3	1	2	3	3
Total retail.....	5	55.5	1	4	4	3

\* Simple arithmetic.

later than business and the close timing of those turns which preceded corresponding turns in business are evident from this table. It seems then that there is a fairly general tendency for movements in retail inventories to lag behind movements in general business. However, the fact that in two of the five categories less than one-half of the specific-cycle turns occurred in the vicinity of turns in business emphasizes the degree to which retail inventories appear to behave independently of business movements. But despite the frequency with which noncorresponding movements occurred, there is no series which represents a sharp deviation from the general pattern of retail inventories with respect to timing.

### Comparisons of Conformity

The big slump after 1929, the 1933-37 recovery, and the recession which followed early in 1938 all stand out rather clearly in the aggregate retail inventory record. However, the recovery which culminated in 1945 and the briefly interrupted booms of the postwar decade are only faintly discernible. A

close inspection of Charts 1 and nevertheless reveals some interesting characteristics.

Aggregate, total durable, and nondurable retail stocks were higher at every peak in general business than they were at the preceding trough with the exception of the 1927-29 expansion. On the other hand, aggregate retail stocks declined in only three of the contractions which occurred over the 1925-55 period. Similarly, both durable and nondurable retail stocks declined in only one of the three business contractions during the 1938-55 period.

Superficially, at least, these observations seem to suggest that retail stocks tend to have a positive conformity with business cycles during revivals but negative conformity during recessions. In appraising the record during contractions, however, it must be borne in mind that the decline in general business from February to October of 1938 was scarcely a normal cyclical downward turn. Stocks were low at the beginning of the period as a result of wartime conditions. As in the case of timing comparisons, these initial indications can

Table 2. Conformity of Cyclical Movements to Expansion and Contraction  
in General Business, Selected Categories of Retail Inventories, 1925-55

Phase of reference cycles	Retail inventory classifications					
	Auto-motive	Furniture and appliance	Lumber, building, hardware	Apparel	General merchandise	Aggre-gate retail
<b>Expansions</b>						
Nov., 1927-June, 1929.....	..	..	..	..	..	N
Mar., 1933-May, 1937.....		C	C	C	C	C
June, 1938-Feb., 1945.....	N	C	C	C	C	C
Oct., 1945-Nov., 1948.....	C	C	C	C	C	CC
Oct., 1949-July, 1953.....	C	C	C	C	C	C
<b>Contractions</b>						
Apr., 1926-Nov., 1927.....	..	..	..	..	..	N
June, 1929-Mar., 1933.....	..	..	..	..	..	CC
May, 1937-May, 1938.....	..	..	..	..	..	C
Feb., 1945-Oct., 1945.....	C	N	C	C	N	N
Nov., 1948-Oct., 1949.....	N	C	C	N	C	C
July, 1953-Aug., 1954.....	C	C	C	N	C	N

C = conformity with cycles in general business.

N = nonconformity with cycles in general business.

given fuller meaning by an inspection of the major durable and nondurable constituent series (see Charts 3 and 4).

Without exception, inventories in the two nondurable series were higher at every peak in general business than at the preceding trough. However, apparel stocks rose during two of the three business contractions and general merchandise stocks rose during one contraction.

Inventories in all three durable divisions were higher at every peak of general business during this period than at the preceding trough, with the exception of one instance in the automotive series. Automotive stocks were, of course, lower at the end of the 1938-45 expansion than at its beginning. The record during contractions for durables indicates only slightly less conformity. Automotive stocks declined in two out of three contractions as did stocks of furniture and appliance stores. The stocks of lumber, building, and hardware stores declined in all three business

contractions. During both the 1945 and the 1948-49 recessions, two of the durable series declined and one rose. However, the degree of change in the two series which declined was in both recessions rather mild compared with the amount of change in the one series registering an increase. It appears, therefore, that the different conformity patterns of the total durable series and the three durable components is due largely to the greater degree of change in one series.

A summary of these comparisons is given in Table 2. On the basis of the evidence presented here there appears to be a discernible pattern of conformity between specific cycles in retail inventories and cyclical movements in general business. It also appears that this conformity is greater during periods of business revival than during recession. Indeed, the declines in book value of retail stocks which occurred during reference contractions were mild, and in those instances in which there was

nonconformity during contractions, inventory build-ups were pronounced.

There are no doubt a number of influences which have had a bearing on the tendency of retail inventories to rise during periods of slackening demand. It seems reasonable to speculate, however, that the difficulty of predicting shifts in consumer demand would be very important among such influences as would the time required to adjust inventories downward, once the need to do so became apparent. It is also possible that the proverbial desire to "beat last year's figures" tends to induce an optimism with regard to sales anticipations that is not justified by either past sales experience or local economic indicators.

### Conclusion

The significance of the timing and conformity patterns rests in the clue they provide as to whether cycles in retail inventory investment tend to exert an aggravating or a mitigating influence on cycles in business. Unfortunately, the relatively short period over which the comparisons are made limits any generalization one may draw from them. With due respect to the limitations of the data, however, there seem to be good logical grounds for the conclusion that changes in retail inventories tend to be an aggravating factor in business cycles.

The predominance of a lag relationship between retail inventories and general business does not imply that changes in retail inventory investment are unimportant as initiating factors in business movements. It is not the liquidation of inventory which affects business conditions, but the cutback in

purchase orders which accompany liquidation. It is not unusual for retailers to place orders as much as three to six months in advance of a selling season. Consequently, the impact of inventory liquidation by retailers would tend to be felt before book values begin to decline. In view of this circumstance, there seems to be enough coincidence between cyclical turns in retail inventories and cyclical turns in business to indicate that this category of investment plays some part in the timing of business booms and crises.

There also seems to be a sufficient tendency for retail inventories to rise during business expansions and to decline during business contractions to indicate that the behavior of these inventories contributes to the momentum of business booms and crises. The timing relationship between inventories and business cycles together with their pattern of conformity suggests a strong tendency for retail inventory investment to reinforce and prolong movements in general business.

It is amusing, and a little disturbing, that the findings of an empirical investigation are frequently much at variance with those which common sense would have suggested anyway. The difference here is that one now perhaps has a clearer impression of the degree to which accumulation and liquidation of retail stocks contribute to the swings of the business cycle. To hope for a solution to the problem of business expansions and contractions is probably somewhat unreasonable. It does seem reasonable, however, to expect that we can bring these cycles under better control through a better understanding of the forces which produce them.

# Professors, Physicians, and Unionism

MELVIN LURIE

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IT IS generally acknowledged that the United States stands at the threshold of an unprecedented increase in the demand for higher education. The college teacher anticipates a reversal of the wage trend of the past two decades in which his real income has decreased in absolute and relative terms. However, there is the possibility, increasingly greater, that this golden age of college teaching will not come to pass. The demand for teaching services will surely increase but adjustments on the supply side may reduce, if not eliminate, anticipated wage gains.

Some 25 years ago, the medical profession found itself in an economic position not very different from that of college teachers today. Whereas teachers would like to obtain some financial benefit from the projected rising demand for their services, physicians (in 1932) were trying to prevent their incomes from falling because of the decreased demand for their services. In both cases, the appropriate maximizing policy for those in the profession would be to restrict entry.

The position of organized medicine in 1932 on restrictionism can be described by this quotation:

If the present state of supply is continued, the number of physicians in excess of the indicated needs will increase. . . . Those responsible for medical education and the licensure of physicians, particularly for graduates from foreign schools, should have this situation clearly before them.<sup>1</sup>

The record of income changes in selected professional occupations, which is presented in the first section, shows that the American Medical Association has been an effective union, i.e. it has raised the incomes of its membership. In the second section, the economic policies of the AMA are reviewed, particularly those affecting the supply of physicians. However, the chief purpose of this paper is to discuss unionism in higher education; and in the third section, the craft union for college teachers, i.e. the American Association of University Professors, is pictured in the role of an effective union — using the AMA as a model. College teachers may prefer relatively lower incomes to the practices associated with effective

<sup>1</sup> American Medical Association, Commission on Medical Education, *Report*, 1932, quoted in C. Stillman, "Economic Analysis of the Policies of Organized Medicine" (unpublished Ph.D. dissertation, University of Chicago, 1950), p. 92.

unionism, but it is the purpose here only to set forth the alternatives.

A candid discussion of unionism in higher education is probably appropriate at this time since the leadership of the AAUP seems to be confused on this issue, as the following statement from a recent membership brochure indicates:

For the academic profession its [the AAUP's] role and functions are analogous to those of the American Bar Association for the legal profession and the American Medical Association for the profession of medicine.<sup>2</sup>

## I.

In a circumspective statistical analysis, Friedman and Kuznets determined the extent to which incomes derived from independent professional practice could be explained by length and cost of training. In comparing the incomes of physicians and dentists, they concluded:

. . . completely free and moderately rational choice of profession could at most account for a 17 per cent difference between average incomes in medicine and dentistry. The observed difference is over 32 per cent. Thus about half of the observed difference seems attributable to greater difficulty of entry into medicine.<sup>3</sup>

The Friedman-Kuznets analysis considered medicine and dentistry as professions, capable of being described by similarities in training and service supplied. Indeed there were differences, but they were differences in degree and were measurable. Taking these differences and evaluating them in terms of

the compensating income difference that physicians would command relative to dentists, there still remained an unexplained differential in observed income between the two professions of some 15 percent; that is, unexplained in terms of cost factors but understandable in terms of the restrictionist activities performed by the organizations servicing the two professions.

The 15 percent differential in favor of medicine was derived from data collected during the period 1929 to 1933. It would be enlightening to learn whether this income advantage has been maintained for a later period, a more important, to learn how physicians, lawyers, and professors—three professions referred to in AAUP quotation—have fared relatively to each other. There are available from several sources data that will yield proximate income changes for years up to 1954 as shown on page 15.<sup>4</sup>

From these data, can we infer that the AMA has maintained its 15 percent income advantage relative to dentists? For the period 1940 to 1951, the in-

<sup>2</sup> The 1940 to 1954 data appeared in a pamphlet entitled "What Still Remains to Be Done for Faculty Salaries," prepared by the McGraw-Hill Department of Economics. The data on faculty income are based on a questionnaire survey conducted during 1940 by the Council for Financial Aid to Education. The data on the incomes of physicians, dentists, and lawyers were derived from special studies of the Office of Business Economics, Department of Commerce. The results of these studies through 1951 were published in the *Survey of Current Business*, July, 1952, p. 7. The data were brought up to 1954 by McGraw-Hill on basis of unpublished figures supplied by Department of Commerce. I am indebted to Theodore C. Boyden of McGraw-Hill for supplying these references.

<sup>3</sup> Brochure dated October 9, 1956.

<sup>4</sup> M. Friedman and S. Kuznets, *Income from Independent Professional Practice* (New York: National Bureau of Economic Research, 1945), p. 395.

**Indexes of Average Money Income Before  
Taxes for Selected Professions  
1940, 1951, and 1954**

Profession	1940	1951	1954
Physician.....	100	292	345
Dentist.....	100	214	...
Lawyer.....	100	210	226
Professor.....	100	...	182

\* Data not available.

of physicians rose 192 percent while that of dentists increased by 114 percent. It may be that part or even all of the further gain for physicians can be traced to changes in underlying economic forces favoring higher incomes for physicians. I accept this interpretation, since I am not able to separate out, as Friedman and Kuznets did, all other factors besides unionization that might have been responsible for the 1940-51 differential. However, we should be able to state that the earlier advantage of about 15 percent was at least maintained by the AMA up to 1951.

Having established a quantitative estimate of the effect of the AMA on the income of physicians, we can turn to the subject at hand—the AAUP and the AMA; in deference to the AAUP quotation, the American Bar Association is included. For the period 1940 to 1954, the tabulation shows a money income increase of 245 percent for physicians, 126 percent for lawyers, and 82 percent for professors. In my judgment, these differences in income changes are attributable primarily to the differences in the role and functions of the respective professional or-

ganizations.<sup>5</sup> Adjusting the money income data for the rise in the price level from 1940 to 1954 does not change the relative standing of the professions, but it shows that the real income going to university professors over this period declined by 5 percent.

It appears that the American Bar Association has about the same order of effectiveness as the American Dental Association; neither group is an effective union in the same way as the AMA. In last place in this matter of economic gain is the AAUP.

## II.

The turn of the century might be described as a period of unfettered individualism in the sale of professional services. Although by 1895 each state had on the books some statute that limited the practice of medicine to licensed physicians, the requirements for licensure were so modest that these laws were ineffective in limiting entry into the profession.

<sup>5</sup> It should be noted that physicians and lawyers are paid for their services directly by the purchasers whereas faculty are paid by institutions rather than by students. Such differing methods of payment may have caused the income increases to physicians and lawyers to be overstated since their incomes may have been increased by working longer hours or by receiving more patients or clients per hour. Furthermore, it may be true that, between 1940 and 1954, a greater demand for medical service and a greater productivity by physicians favored higher incomes for physicians relative to lawyers and college teachers. Nevertheless, it is my belief that the largeness of the percentage increase in the income of physicians would accommodate these qualifications and still support my view that the AMA has been an effective union.

We could expect professional services at this time to be of poor quality, reflecting the inability of the economy to support a large investment in education and training. It seems, however, that the public, with good reason, was unwilling to endure inferior services in medicine. In 1910 the Flexner Report<sup>6</sup> publicized the varying but generally poor state of medical education and called for an increase in its average quality. The Flexner Report was an instrument of humanitarian design but it set forth the belief that there was in existence a definition of medical education, and other standards of training and practice in medicine, that in some objective way described "the acceptable physician." From this view of absolute standards, it was only a short jump to the realization that these standards could only be competently determined by the medical profession itself. Thus a full circle of control was completed: the acceptance of absolute standards, which, in effect, determined entry into the profession, reverted to those that could derive the most economic benefit from keeping the standards high and the supply low.

In 1910 the public chose fewer physicians of higher quality in preference to more physicians; today, the AMA makes this choice for us, and in doing so, they have set a rising absolute standard of performance for those wishing to enter the profession. I note that the same high quality standards are not applied to those already in the profession; for no matter what standard of

medical proficiency was required when a physician entered the union, once he becomes a member, his union card cannot be voided for performance above the level of malpractice.

This brief exposition points to two weapons that the effective union must have: first, the reputation that the service supplied is intimately connected with the public's health and welfare; and second, an appreciation by the public that the qualitative standards can only be set by those who are most familiar with their operation, the sellers themselves.

Organized medicine applies its monopoly control at two levels: through the offices of the AMA and through the power of the state. The AMA has obtained the quasi-legal authority of rating medical schools. Its Council on Medical Education and Hospitals surveys such facilities as instructors, laboratory equipment, and opportunities for clinical experience, and then, if minimum standards are met, prescribes the number of students a given medical school can educate in order to fall within the "approved" category.

However, the AMA cannot control the supply of physicians on its own; it must call to its aid the licensing power of the state. Since we do expect that all physicians shall have the degree of doctor of medicine, and since the AMA through its Council on Medical Education and Hospitals controls the number of medical schools and the number of students per medical school in the country, one might ask why control of the state licensing commission is such a necessary weapon for organized medicine. Licensing control allows the AM-

<sup>6</sup> Abraham Flexner, *Medical Education in the United States and Canada* (New York: Carnegie Foundation, 1910).

effectively to exclude people who acquire their medical education from sources other than the approved list of medical schools. These people fall into three categories: (1) doctors of medicine who hold their degrees from foreign schools, (2) doctors of medicine who hold their degrees from unapproved American schools, and (3) persons who hold advanced degrees in branches of healing not defined as "medicine" by organized medicine, e.g. osteopaths, chiropractors, and others.<sup>7</sup>

It is said that medical licensing in the United States is not independent of organized medicine and that medical licensing commissions, if not staffed by AMA members, are a party to their wishes. Hyde and Wolff note:

In half the states reporting [in response to a Yale University questionnaire on licensing practices] the society [AMA] recommends appointees for the State Board of Medical Examiners, in others the society nominates candidates for this office, and in one state the State Medical Board of Censors itself constitutes the State Board of Medical Examiners.<sup>8</sup>

The Yale study concludes that "the political authority of the state itself has in effect been delegated to organized medicine."<sup>9</sup>

### III.

One important structural difference exists between the AAUP and the AMA. The AMA performs two kinds

of functions for its members. In addition to serving physicians in the capacity of a craft union, i.e. protecting and advancing their economic interest, it provides the services of an outstanding scientific organization. For example, it publishes several journals, standardizes drugs, protects the public from harmful medicines, and provides a forum for scientific papers. The AAUP, on the other hand, has but one dimension: it is a craft union for college teachers. For scientific services its members look to the professional organizations serving their subject fields.

If the AAUP were to emulate the AMA, its first task would be to identify potential competitors, that is, the people to whom entry into the teaching profession must be limited or denied. These competitors can be divided into three groups: the graduate student, the "teacher" temporarily employed in another capacity, and the immigrant. Only the first two categories are quantitatively significant; the immigrant is mentioned only to preserve the symmetry between higher education and medicine.

In the absence of all restrictions on entry, the graduate student would choose between university teaching and other occupations as opportunity beckoned. In recent years, higher salaries and other benefits in the nonteaching sector have encouraged graduate students in that direction. Now, however, a reversal of this trend is expected as university earnings and benefits become relatively more favorable. We anticipate then more university teachers for a given number of graduate students, but even this increased movement into

<sup>7</sup> For documentation of restrictionist activities against these groups, see C. Stillman, *op. cit.*, pp. 177-79.

<sup>8</sup> D. R. Hyde and P. Wolff, "The American Medical Association: Power, Purpose, and Politics in Organized Medicine," *Yale Law Journal*, Vol. 63 (May, 1954), p. 959.

<sup>9</sup> *Ibid.*

teaching would never be large enough to cause concern unless a sharp increase in subsidies were made available for the purpose of increasing substantially the total number of graduate students. In this connection, the National Defense Act of 1958, to the extent that it encourages the production of Ph.D.'s, is an important contribution to the welfare of the country; but, for university professors, the act can be interpreted as providing competitors for their positions.<sup>10</sup> An AMA-like AAUP would have taxed its membership and lobbied against this form of "socialized" education. The subsidies notwithstanding, university teachers would, at most, limit rather than deny, entry to graduate students; such benevolence is not altruism but hard sense, because they need the graduate student — to assist them (the nurse-physician relationship) and to stimulate them, as well as to fill the gaps in their ranks that would occur from normal turnover.

The "teacher" employed in another capacity and biding his time until university salaries rise sufficiently to make his job transfer profitable should be denied entry so far as possible. Were the vast reservoir of teacher substitutes now residing in industry and government allowed to transform themselves into university teachers without interference, the economic gains which would normally accrue to teachers from the predicted increase in demand for their services would quickly disappear.

Having defined the competition, we may proceed to discuss restrictionism as it could be applied to the higher edu-

tion industry. Restrictionism depends on the power to license, that is, on formal permission from the authorities to carry on a business or profession. To specify the exact licensing schemes under which we need to define the authorities. These licensing schemes will be offered: to limit entry by graduate students; other primarily to keep out teacher substitutes but also to control entry of graduate students not affected by former scheme.

The license for the graduate student is the Ph.D. degree, and the appropriate authority determining whether the candidate has met the qualifications for the degree is a committee of university professors, although, in fact, the degree is awarded by an institution. The license for teacher substitutes is a certificate to practice and the appropriate authority is the state or some subdivision of the state.

These licensing schemes can be further delineated by the kind of prerequisites required for licensure. The Ph.D. is an educational and ability license; the state certificate may have any other requirement in fact, but in theory the prerequisite is skill, or, more accurately, the manner in which the level of skill can be related to some notion of the health and welfare of the community.

The first licensing technique controls the number of Ph.D.'s coming out of existing graduate schools. In this restrictionist endeavor, the academic profession has a distinct advantage over medicine. In education, the training of new sources of supply and the performance of the teaching service are one and the same. In medicine, physicians are trained by doctors of medicine.

<sup>10</sup> The same can be said for the Ford Foundation fellowship program.

who generally do not, or at least need not, practice medicine. If a physician does not practice, AMA membership offers no significant economic advantage and the record indicates that the AMA's control over teachers of medicine is weak. Possibly for this reason, the AMA restricts the supply of physicians by controlling the institution rather than the teacher. Organized higher education may be able to restrict the supply of competitors through the teacher as well as through the university. Deliberate restrictionist practices by a teacher or a group of teachers would invite the stigma of the community if discovered. However, restrictionism need never be discovered; if such practices are questioned, the reply need only note that university professors are attempting to raise the standards of graduate training.

Controlling the number of institutions with graduate schools is the purpose of the second technique. One must use care here, for undergraduate education, representing the demand for professorial services, must not be restricted but on the contrary be encouraged. An appropriate function for a "new" AAUP in this area would be to prepare a roster of "approved" graduate schools. It would seem to be good politics to include in this listing all graduate schools currently approved for graduate training by the American Association of Universities. The line would be drawn at new universities offering graduate training or at undergraduate schools desiring to add graduate education to their offering. Schools who defied the AAUP listing and continued to produce potential competitors

would simply be labeled "quack" schools, and their graduates would be referred to as "quack" teachers. Such an opprobrious term worked wonders to protect the "legitimate" practice of medicine from being usurped by "charlatans"; it could work in the same way for organized higher education.

Enlightened, self-interested actions by union members can reduce but not control teacher candidates from the ranks of the graduate students. In time, the "quack" label would lose its effectiveness and students from "unapproved" graduate schools would undermine the income structure of college teachers. To prevent this occurrence, and more importantly, to protect the profession from the vast inventory of teachers patiently residing in industry and government, a third technique of restrictionism must be invoked. This technique uses the power of state governments to enforce union restrictionist rules. The AAUP would request from state governments licensure privileges on the grounds that the health and welfare of the community would be jeopardized if one college teacher were allowed to "poison" the minds of young America. To convince legislatures of the desirability of university-teacher licensing, teachers must resort to a strategy of capitalizing on the disreputable parts of their past collective character which, for some of the public, will call to mind evidences of radicalism, agnosticism, and perhaps alcoholism. Of course it would be strongly emphasized by representatives of the union that the people possessing these undesirable qualities have long since departed the teaching profession, but it would also be emphasized that

they will return should the predicted higher demand for university education materialize. No state legislature would fail to pass a "university teaching licensing act" under this kind of pressure. Once state licensing has been achieved, restrictionism is complete.

The licensing commissions would naturally consist of union members or their sympathizers, because university teachers would know the most about the requirements for becoming an "acceptable" teacher.<sup>11</sup> The licensing ex-

amination would be divided into parts: a written part containing questions on the teaching field and an oral part consisting of adjustment questions. The oral section is included because examiners would have to come face-to-face with the applicant to determine whether he has the "stuff" to become an "acceptable" teacher.

#### IV.

University professors are currently in an economic position that could, under effective unionism, result in large increases in income over the next two decades. We could disguise our real goals by asking for and imposing high standards on those desiring to enter the teaching profession. Clearly university professors will not accept all or perhaps any of the restrictionist union activities suggested here, but it seems appropriate to speculate on these policies and, in so doing, to realize the great differences between college teachers and the medical profession on the question of unionism.

<sup>11</sup> The administration of a university-teacher licensing act presents a number of practical problems which cannot be appropriately discussed here but which cannot be entirely disregarded. One such problem is the establishment of qualitative standards for licensure. For example, would a professor of education be qualified to pass on the merits of an applicant for licensure in physics? Medical licensing has a distinct advantage over teacher licensing because its applicants have a more homogeneous professional training. This fact probably explains the long and successful administration of medical licensing acts and also the failure of teacher licensing acts in the few cases where they have been considered.

# For More Adequate Measurement of Unemployment

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HOW ADEQUATE are the figures on unemployment prepared by the Department of Labor and the Bureau of the Census?<sup>1</sup> Is it possible to develop a more complete measure of the extent to which our economy falls short of full employment?

These questions come up again and again, especially during recessions. As a result of the 1957-58 recession experience, the International Longshoremen's and Warehousemen's Union developed a critique of the official unemployment estimates and proposed a method for improving them. This article, however, is not designed to stress the merits of the ILWU method; rather it is to direct attention to the problem of developing a general measure of this type.

The Census and BLS measure primarily those who are totally unem-

ployed and are more or less actively seeking work.<sup>2</sup> They drop out of the labor force those who have ceased actively to seek work and who have become housewives, students, or "retired" because jobs are not available. They count as "employed" those who work as little as one hour a week.

The ILWU made two adjustments of the Census and BLS figures: (1) It added those who would be working had 1956 conditions of full employment continued, but whom the Census

<sup>2</sup> Under the operational definition of the Census and BLS, the unemployed includes those who are temporarily ill and those who think no work is available in their line of work and therefore are not looking for employment in the survey week. As Richard C. Wilcock has noted, "it is questionable how many people in this category are actually counted as unemployed since much depends on the extent of the enumerator's probing." Richard C. Wilcock, "The Secondary Labor Force and the Measurement of Unemployment," in National Bureau of Economic Research, *The Measurement and Behavior of Unemployment* (Princeton: Princeton University Press, 1957), p. 198.

<sup>1</sup> Since July, 1959, the Bureau of the Census collects the primary data and the Bureau of Labor Statistics controls and processes the data.

had dropped out of the labor force. (2) It added the "full-time equivalent" unemployment of those who work part time involuntarily, for economic reasons.

### The Totally Unemployed Census-BLS Figures

To understand the adjustments made by ILWU, it is necessary to summarize briefly how the Census collects its information.

The Census Bureau sends out interviewers to a sample of about 35,000 households containing about 80,000 persons 14 years of age and over to determine the labor force status of these persons during the preceding week.

What exactly does Census measure by this procedure?

According to Gertrude Bancroft, Coordinator for Manpower Statistics in the Census Bureau:

... unemployment as currently defined [by Census] represents the number of people without jobs who are exerting some pressure on the free labor market for jobs.

Perhaps then the best that can be claimed for the present [Census] concept of unemployment is that it furnishes a rough guide to the short-term immediate demand for new jobs, or conversely, measures the immediate (one-week's) supply of workers with no present job attachment. Its utility may be less as a tool of economic analysis and more as an index of short-run dislocation of manpower or of the volume of available manpower that has no present job connection.

On the other hand, the label "unemployed" as developed from this concept does not, and cannot under present inter-

pretations, include any of the following who might well be considered "unemployed" for some purposes:

1. Partially employed, working at regular jobs but at reduced hours because of economic difficulties

4. Unpaid workers who help in family enterprise on a full-time basis because they cannot find paid jobs [housewives]

5. Persons who have become discouraged in their search for work and indicate no current interest in employment

6. Persons with needed skills who are not free to take a job or not interested in the going wage rates but who, for some purposes, such as mobilization, might be considered part of the labor supply unemployed [e.g. students, housewives]

In summary, then, the present concept of unemployment yields a measurement of the number of job applicants, regardless of reason for seeking work. It does not yet yield a clear-cut measurement of the effects of production cutbacks, or frictions or dislocations in the economic system, because it excludes the underemployed and includes voluntary job shifting and other labor force movement. Even less is the concept a measure of wasted manpower or of need for income, since it takes no account of earnings, skill utilization, or living standards among the employed.<sup>3</sup>

The Census-BLS concept is useful for many purposes. It measures very well that portion of the totally unemployed who are in the direst need—the wholly unemployed who are actively seeking jobs. These are the employed who, as a group, represent an important social, economic, and political pressure. It measures the group of unemployed.

The primary inadequacy of

<sup>3</sup> National Bureau of Economic Research, *op. cit.*, pp. 66-69.

Census-BLS concept is that it does not measure disguised unemployment among certain groups whom it classifies as "not in the labor force."

To illustrate how this may happen: A Census interviewer knocks on the door and asks the housewife the questions.

For herself, she answers that she is a housewife and did not look for work in the preceding week. She is not asked about previous employment, nor does she volunteer the information that she worked steadily until six months ago, that she actively and unsuccessfully sought work for several months, and finally gave up and became a housewife. For her son, the story may be roughly parallel. He was laid off, failed to find work, and finally became a student. For her father, the story may be similar. He was laid off, failed to find work, and reluctantly and prematurely "retired."

This is obviously an extreme example but it illustrates the point. All were counted by the Census as "not in the labor force." All were unemployed who would be working if they could find work, but who after failing to find work, took some alternative status, if one was available to them. This disguises their unemployed status, but does not change its essential character.

### ILWU Estimate

The ILWU measures the extent to which our economic system fails to supply full employment to those who ordinarily work in periods of full employment. Its estimate includes those who would normally work if job opportunities were as available as in the

last period of sustained relatively full employment. To the Census concept of unemployed active job seekers it adds those who are not actively looking for work because they feel it is futile and who have lapsed into a status which Census considers "not in the labor force."

Full employment and prosperity have been recognized by law as primary goals of economic and political policy since the passage of the Full Employment Act of 1946. The extent to which our economy falls short of this goal is therefore of key importance. The Census-BLS concept understates the extent to which our economy fails to provide full employment. The type of concept presented here represents a more adequate measure of economic malfunctioning.

### *Choice of Base Year*

The last period of sustained full employment, as measured by the Census-BLS data on total civilian employment, seasonally adjusted, was the year 1956. We could be more precise and include the first half of 1957 but no purpose would be served since the level was fairly stable from the spring of 1956 to the middle of 1957.

Was 1956 an abnormal year in any major respect? We cannot see any basis for considering it abnormal. There was a certain level of cold-war expenditures, but in this respect 1956 was not different from preceding or subsequent years. The choice of the year 1956 was made basically because of the level of employment provided. Naturally, however, 1956 was a peak year in other respects as well, for ex-

ample in industrial production, gross private domestic investment, per capita disposable income and, of course, stock prices and profits. A number of the economic indicators kept rising into 1957 but in many cases this reflected the continued increase in prices rather than basic increases in economic activity.

#### Participation Rates

To what extent did our economy provide relatively full employment in 1956? The answer to this question can be found in Census data on "labor force participation rates." The Census computes the percentage of persons 14 years of age and over in the noninstitutional population who were in the civilian labor force or the armed forces. These participation rates vary with age and sex and vary from month to month in a regular seasonal pattern. For the year 1956 as a whole, the participation rate averaged 59.3 percent of the total adult population. This was the extent to which our economy actually provided relatively full employment in 1956 and we accept this as our measure of full employment.

Assuming continued full employment, as in 1956, how large would the labor force be? Since we have fairly accurate estimates of the total adult population, if we could develop accurate projections of the full employment labor force participation rates, we could derive accurate projections of the full employment labor force. For our purpose, no long-term projection is required. Since we have to project only for a short period, our problem is relatively easy, because under

assumptions of continued full employment these rates are practically stable over short periods.

For example projections of labor force participation rates made by United States Department of Labor vary only one-tenth of 1 percent in ten-year period 1955 to 1965.<sup>4</sup> Projections made by the Census show similar stability.<sup>5</sup>

For our purposes, therefore, it is safe to assume that, had 1956 conditions of full employment continued, the labor force would remain stable, at least up to 1960 or 1965, at about 59.3 percent of the total adult population.

The 59.3 percent labor force participation rate is an annual average. There is a normal seasonality in the labor force, rising in the spring to a peak in the summer and falling in the autumn with some interruption in October. Seasonal adjustment factors to be used for 1957 and 1958 are

<sup>4</sup> U. S., Department of Labor, "Labor Force Projections to 1975," *Monthly Labor Review*, December, 1957. It should be noted that the Labor Department projections start in 1955 as a base year. It is difficult to consider 1955 as a base year for full employment, particularly if we look at the subsequent experience. Civilian employment (seasonally adjusted) climbed from about 65 million at the beginning of 1955 to 66 million at the end of the year. During 1956, however, the total remained relatively stable in the range of 65 million to 66 million.

<sup>5</sup> Projections were made under four different assumptions for the period 1955-75. The average change in labor force participation rates was -0.2 percent. See U. S., Bureau of the Census, *Current Population Reports, Series P-50*, No. 69, *Projections of the Labor Force in the United States, 1955-1975*, pp. 12-13.

vided by the Census,<sup>6</sup> and these factors are applied to secure the full employment labor force participation rate for any particular month.

It should be recognized that there is always a difference between the "normal seasonality" as provided by the Census, and the specific, particular seasonality. For example, last winter was unusually severe and that would alter the particular seasonal pattern. For this reason the figures derived from using the "normal seasonality" factors are limited in their accuracy because of this. Some of the month-to-month fluctuations in the resulting estimate of hidden unemployment are probably attributable to this factor. The estimates are therefore accurate only to the extent that seasonality in the given year is normal. For this reason, ILWU makes no claim that the figure for any particular month is highly accurate. Rather the monthly figures should be regarded as approximations.

We have described all of the major components of the ILWU method. The arithmetic of the method is illustrated by the column headings of Table 1.

### Other Studies Indicating Hidden Unemployment

A group of spot studies conducted by the Census Bureau as well as by others over the last decade or so indicate that additional probing of the group classified as "not in the labor

force" would reveal pools of hidden unemployment. How large these pools are depends on the character of the probing and the particular questions used. The Census Bureau used a different set of supplementary questions in six studies from 1946 onward to find how many initially classified as "not in the labor force" could have been classified as "seeking work." The results varied from an additional 11 percent up to 73 percent of the reported number of unemployed. Other studies show similar results.<sup>7</sup>

Some work has been done on what is called "the secondary labor force," the group whose participation in the labor force varies for many reasons. Richard C. Wilcock, for example, has indicated the need to provide a more accurate picture of the availability of this group of workers in the labor market.<sup>8</sup>

### The Partially Unemployed

In his chapter on full employment in *The Measurement and Behavior of Unemployment*, Dr. Albert Rees says:

The data on total unemployment discussed above include only persons who did not work at all during the survey week. It is frequently suggested that in measuring full employment, changes in partial unemployment should be taken into account. In census statistics, partially unemployed persons can be defined as those who worked at least one hour, but involuntarily worked less than a full week. These persons are now counted as employed. Theoretically, the increase in this

<sup>6</sup> Bureau of the Census, *Current Population Reports, Labor Force*, Series P-50, No. 82, *Seasonal Variations in the Labor Force, Employment and Unemployment*, Table A, p. 5.

<sup>7</sup> See National Bureau of Economic Research, *op. cit.*, pp. 78-80 and 198-201.  
<sup>8</sup> Richard C. Wilcock, "The Secondary Labor Force and the Measurement of Unemployment" in National Bureau of Economic Research, *op. cit.*, pp. 167-210.

group during a business contraction could be enormous. If, in response to a decline in demand, most employers were to reduce labor input by work sharing rather than by layoffs, millions of man-weeks of employment could be lost each week in involuntary idleness without appearing at all in the unemployment statistics.<sup>9</sup>

And T. K. Hitch, who pioneered in the analysis of partial unemployment, concluded that "the volume of [involuntary] part-time work increases somewhat faster than unemployment, at least in the early stages of a recession."<sup>10</sup>

### Census-BLS Reports

In its monthly report on the labor force, the Bureau of Labor Statistics provides fairly complete information on those in nonagricultural industries who do not work full time.

We can consider all those who worked 35 hours or more a week as being fully employed. We can disregard all those who work part time "for other reasons" such as bad weather, industrial dispute, vacation, illness, and similar reasons. There remains a sizable group who worked 1 to 34 hours a week for economic reasons.

All these people were involuntarily unemployed part of the time for legitimate economic reasons outside their own control. Most of them worked part time because of slack work or because they could find only part-time work.<sup>11</sup> In the group who work part time for economic reasons we do not

distinguish between those who usually work full time on their present job and those who usually work part time. The latter are working part time because work is slack or because they cannot find only part-time work.

The Census-BLS considers all these persons as "employed." If a person who works one hour a week can be considered "employed," a person who is unemployed one hour a week could, by the same logic, be considered "unemployed." However, we are concerned with semantics or labels. More important than labels, we recognize that as a recession deepens, there will be a growth in partial as well as in total unemployment and there is an obvious need to combine both in a single over-all measure.

### ILWU Estimates of the Full-Time Equivalent

It is common statistical practice to combine full-time and part-time employees into one figure of full-time equivalent employees. The Department of Commerce does this in national income statistics. In the field of unemployment statistics, a similar technique was developed by T. K. Hitch and Dr. Albert Rees.<sup>12</sup> We have chosen the method in existence which seemed most accurate.

The method simply is to estimate that each week of time lost in involuntary part-time work is the equivalent of one wholly unemployed worker seeking full-time work. The arithmetic

<sup>9</sup> *Ibid.* pp. 20-21.

<sup>10</sup> T. K. Hitch, "The Meaning and Measurement of 'Full' or 'Maximum' Employment," *Review of Economics and Statistics*, Vol. 33, No. 1 (February, 1951), p. 8.

<sup>11</sup> See, for example, Census Series P-1 for September, 1958, Table B, p. 5.

<sup>12</sup> National Bureau of Economic Research, *op. cit.*, pp. 21-22 and 56-57.

of the method is explained by the column headings of Table 2. It should be noted that these calculations are made for nonagricultural workers only, since the Census provides data on part-time work for economic reasons for nonagricultural workers. Some allow-

ance might very well be made for other workers but none has been made.

The ILWU method is conservative for additional reasons. It considers everyone employed 35 hours a week or more as fully employed. An examination of the 1957-58 recession

Table 1. ILWU Adjustment of Census Totally Unemployed Figures Since 1956

Year and month	Full employment labor force participation rate (59.3%)		Total noninstitutional population over 14 years of age (4)	Total full employment labor force (3) $\times$ (4) (5)	Armed forces (6)	Total full employment civilian labor force (5) - (6) (7)	Census civilian labor force figure (8)	Hidden unemployment among those "not in labor force" (7) - (8) (9)	Census totally unemployed figure (10)	Adjusted ILWU totally unemployed (9) + (10) (11)
	Census seasonal adjustment factor	Seasonally adjusted (59.3) $\times$ (2) (3)								
	(1)	(2)								
(Thousands)										
1956.....	0	59.3 <sup>b</sup>	118,734	70,387	2,857	67,530	67,530	0	2,551	2,551
1957										
Jan.....	97.6	57.9	119,614	69,257	2,817	66,440	65,821	619	3,244	3,863
Feb.....	97.6	57.9	119,745	69,332	2,817	66,515	66,311	204	3,121	3,325
Mar.....	98.2	58.2	119,899	69,781	2,816	66,965	66,746	219	2,882	3,101
Apr.....	98.7	58.5	120,057	70,233	2,820	67,413	66,951	462	2,690	3,152
May.....	100.1	59.4	120,199	71,398	2,821	68,577	67,893	684	2,715	3,399
June.....	102.6	60.8	120,383	73,193	2,819	70,374	69,842	532	3,337	3,869
July.....	103.0	61.1	120,579	73,674	2,823	70,851	70,228	623	3,007	3,630
Aug.....	101.8	60.4	120,713	72,911	2,839	70,072	68,994	1,078	2,609	3,687
Sept.....	100.5	59.6	120,842	72,022	2,819	69,203	68,225	978	2,552	3,530
Oct.....	100.8	59.8	120,983	72,348	2,786	69,562	68,513	1,049	2,508	3,557
Nov.....	100.1	59.4	121,109	71,939	2,729	69,210	68,061	1,149	3,188	4,337
Dec.....	99.3	58.9	121,221	71,399	2,688	68,711	67,770	941	3,374	4,315
1958										
Jan.....	97.6	57.9	121,325	70,247	2,647	67,600	66,732	868	4,494	5,362
Feb.....	97.6	57.9	121,432	70,509	2,644	67,665	67,160	505	5,173	5,678
Mar.....	98.2	58.2	121,555	70,745	2,648	68,097	67,510	587	5,198	5,785
Apr.....	98.7	58.5	121,656	71,169	2,654	68,515	68,027	488	5,120	5,608
May.....	100.1	59.4	121,776	72,335	2,638	69,697	68,965	732	4,904	5,636
June.....	102.6	60.8	121,900	74,115	2,631	71,484	70,418	1,066	5,437	6,503
July.....	103.0	61.1	121,993	74,538	2,631	71,907	70,473	1,434	5,294	6,728
Aug.....	101.8	60.4	122,092	73,744	2,636	71,108	70,067	1,041	4,699	5,740
Sept.....	100.5	59.6	122,219	72,843	2,635	70,208	68,740	1,468	4,111	5,579
Oct.....	100.8	59.8	122,361	73,172	2,632	70,540	69,111	1,429	3,805	5,234
Nov.....	100.1	59.4	122,486	72,757	2,627	70,130	68,485	1,645	3,833	5,478
Dec.....	99.3	58.9	122,609	72,217	2,620	69,597	68,081	1,516	4,108	5,624
1959										
Jan.....	97.6	57.9	122,724	71,057	2,597	68,460	67,430	1,030	4,724	5,754
Feb.....	97.6	57.9	122,832	71,120	2,321	68,799	67,471	1,328	4,749	6,077
Mar.....	98.2	58.2	122,945	71,554	2,579	68,975	68,189	786	4,362	5,148
Apr.....	98.7	58.5	123,059	71,990	2,571	69,419	68,639	780	3,627	4,407
May.....	100.1	59.4	123,180	73,169	2,550	70,619	69,405	1,214	3,389	4,603
June.....	102.6	60.8	123,296	74,964	2,538	72,426	71,324	1,102	3,982	5,084
July.....	103.0	61.1	123,422	75,411	2,537	72,874	71,338	1,536	3,744	5,280
Aug.....	101.8	60.4	123,549	74,624	2,537	72,087	70,667	1,420	3,426	4,846
Sept.....	100.5	59.6								

<sup>a</sup> U. S., Bureau of the Census, *Current Population Reports, Labor Force*, Series P-50, No. 72, Table B, p. 3. Based on 1956 actual figures.

<sup>b</sup> *Ibid.*, Series P-50, No. 82, *Seasonal Variations in the Labor Force, Employment and Unemployment*, Table A, p. 5.

indicates there was a substantial decline among those working 35 hours or more and 41 hours or more.

### Summary of ILWU Estimates

The net effect of all these adjustments for the period from 1956 up to August, 1959, is shown in the accompanying chart and tables.

A number of observations seem warranted.

(1) The basic trend and direction both the Census and the total ILW estimates are similar.

(2) The full-time equivalent unemployment among involuntary part-time workers rose to a peak at the height of the 1957-58 recession and tapered off.

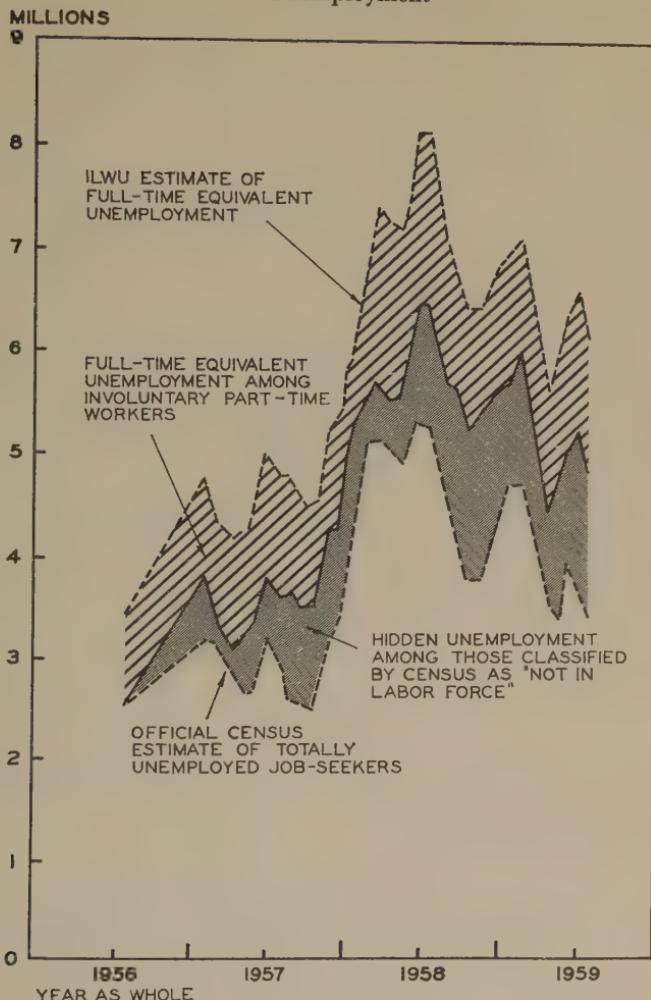
**Table 2. Full Time Equivalent Unemployed for Economic Reasons Among Part-Time Workers, Since 1956, Nonagricultural Workers Only**

Year and month (1)	Number working 1-34 hours for economic reasons		Total (4)	Average hours <sup>a</sup> (5)	Percent average below 40 hours (6)	Full-time equivalent unemployed (4) $\times$ (6) (7)	Adjusted unemployment including full-time equivalent unemployment (Table 1, col. 11) + (7) (8)
	Usually work full time (2)	Usually work part time (3)					
	(Thousands)						
1956 <sup>b</sup> .....	1,067	900	1,967	21.3	47	924	3,475
1957							
Jan.....	1,189	744	1,933	19.5	51	986	4,849
Feb.....	1,203	873	2,076	20.3	49	1,017	4,342
Mar.....	1,288	848	2,136	19.5	51	1,089	4,190
Apr.....	1,242	841	2,083	19.7	51	1,062	4,214
May.....	1,215	918	2,133	19.6	51	1,088	4,487
June.....	1,312	1,189	2,501	20.2	50	1,251	5,120
July.....	1,091	1,272	2,363	20.1	50	1,182	4,812
Aug.....	1,076	1,247	2,323	20.5	49	1,138	4,825
Sept.....	1,068	884	1,952	19.9	50	976	4,506
Oct.....	1,058	934	1,992	19.8	50	996	4,553
Nov.....	1,153	1,056	2,209	23.2	42	928	5,265
Dec.....	1,306	1,026	2,332	19.9	50	1,166	5,481
1958							
Jan.....	1,953	1,116	3,069	19.9	50	1,535	6,897
Feb.....	2,084	1,111	3,195	20.4	49	1,566	7,244
Mar.....	2,290	1,227	3,517	20.2	50	1,759	7,544
Apr.....	2,131	1,293	3,424	20.0	50	1,712	7,320
May.....	1,974	1,328	3,302	19.9	50	1,651	7,287
June.....	1,784	1,646	3,440	19.8	50	1,720	8,223
July.....	1,324	1,654	2,978	19.8	50	1,489	8,217
Aug.....	1,400	1,674	3,074	20.0	50	1,537	7,277
Sept.....	1,324	1,179	2,503	19.9	50	1,252	6,831
Oct.....	1,186	1,167	2,353	20.1	50	1,177	6,411
Nov.....	1,129	1,131	2,260	22.1	45	1,017	6,495
Dec.....	1,080	1,256	2,336	19.2	52	1,215	6,839
1959							
Jan.....	1,255	1,215	2,470	19.1	52	1,284	7,038
Feb.....	1,034	1,209	2,243	19.8	50	1,122	7,199
Mar.....	1,049	1,387	2,436	19.0	53	1,291	6,439
Apr.....	975	1,327	2,302	18.9	53	1,220	5,627
May.....	914	1,171	2,085	19.0	53	1,105	5,708
June.....	982	1,562	2,544	19.4	51	1,297	6,381
July.....	863	1,726	2,589	19.4	51	1,320	6,600
Aug.....	1,003	1,544	2,547	19.7	51	1,299	6,145

<sup>a</sup> U. S., Bureau of the Census, Series P-57. Computed from Table 9.

<sup>b</sup> *Ibid.*, Series P-50, No. 22, p. 42.

**ILWU Estimates of Full-Time Equivalent  
Unemployment**



somewhat thereafter. This was to be expected.

(3) The hidden unemployment among those classified by the Census as "not in the labor force" was somewhat more erratic over the period. As already noted, some of these fluctuations probably can be attributed to the difference between estimated normal as against actual seasonality. Aside from

this, however, there seems to be a peaking in the volume of this hidden unemployment in the fall of 1958 and the beginning of 1959, during the recovery phase of the cycle.

(4) According to the Census-BLS figures, there was a net growth in unemployment from 1956 to August, 1959, of about 875,000. According to the ILWU estimates, however, the net

growth in this period was 2.7 million, about triple that indicated by Census-BLS figures.

This is of profound significance and indicates the desirability of using some measure similar to the ILWU estimate in connection with the responsibilities of the government under the Full Employment Act of 1946.

There are some data in the Department of Commerce national income statistics which verify the general magnitude of the ILWU estimates.<sup>18</sup> Unfortunately such verification can be made only for past years, the latest

<sup>18</sup> In 1956 the ILWU estimate of full-time equivalent employment is 66,912,000 including the armed forces.

The Department of Commerce supplies the following figures for 1956:

(1) Persons engaged in production .....	65,711,000
(This figure includes persons in the armed forces and counts only the full-time equivalent of part-time employees from national income statistics. It excludes unpaid family workers.)	
(2) Unpaid family workers... 909,000	
Total.....	66,620,000

The figure for unpaid family workers is not a full-time equivalent, so this figure is somewhat high. Bearing this in mind, the ILWU-derived figure for full-time employment is 66,912,000 compared with this independent figure of 66,620,000. These figures are within one-half of 1 percent of each other.

It should be noted that the ILWU method provides a slightly higher employment figure, and therefore a slightly lower unemployment figure. Here again, the ILWU estimate errs, if at all, on the conservative side.

year for which such data are available being 1956.

### Economic Significance of ILWU Estimates

The ILWU type of measure is useful primarily as a tool for economic analysis and as a barometer of national economic health. It is a more accurate measure of the extent to which we have declined from levels of relatively full employment than Census estimates. It should be used together with the Census data to provide a more complete picture of unemployment.

The unemployed fall into three large groups:

The first and largest group is the totally unemployed active job seekers. This is what Census calls the total unemployed — and the Census estimates are restricted to this group.

The second group are those who would normally be working if full-employment conditions had continued. The unemployed who are no longer active job seekers because they have failed to find jobs and have been forced to become housewives, students, tired, and so on.

The third group are the full-time equivalent unemployed among involuntary part-time workers.

The ILWU method develops estimates for these latter two groups.

Because of the method by which it is developed, the ILWU estimate is limited to the period since 1956, and no longer-term comparisons are made.

# Population, Migration, and Regional Economic Development\*

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THE SUSTAINED MAINTENANCE throughout the present decade of the jump in birthrates of the early and middle 1940's has provided one of the most significant dimensions of our current economic setting as well as one of the major challenges for regional and city planning. Simply meeting the needs of 13 million more Americans has occupied much of the attention of economists and planners, particularly with respect to housing and municipal services.

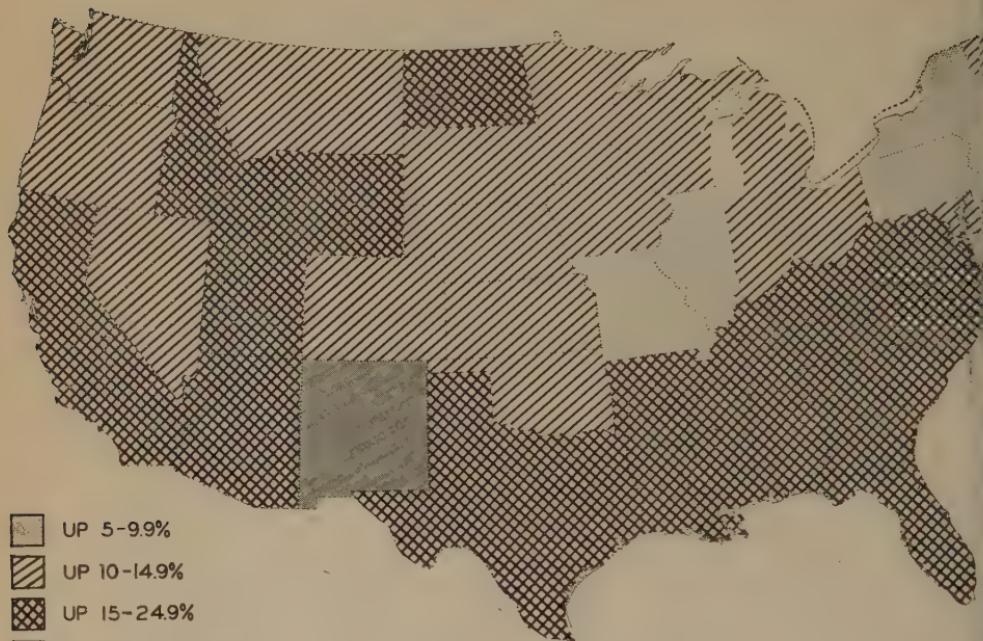
The increase in population, however, has posed problems stemming from more than just the increase in numbers. When we also consider the variation in growth rates in different segments of the population, leading to a changing distribution of the population, a whole host of new problems is superimposed on those which are related simply to

increasing our output of food, clothing, shelter, and services for an expanding economy.

For example, the population increase of the past two decades has been accompanied by dramatic shifts in the age distribution of the population. Of special importance in this connection is the ratio of people outside the working-age group to those inside, roughly the ratio of the population 18 or under and 65 or older to those between 19 and 64. Shifts in the "dependency ratio" have an important effect on the total demand for goods and services relative to our capacity to produce them and, hence, on the determinants of the level of employment. For example, when the World War II baby crop begins to enter the labor force in a few years, the percent of the population in the productive age classes will start rising. The problem of maintaining full employment for a more rapidly growing working-age segment of the population may then become a more challenging one. This is only a single example, and a much discussed one, of the kinds of issues that arise

\* I wish to express my thanks to my former colleagues at Iowa State University, Mr. Albert Buckberg and Dr. Erik Thorbecke, and to Professor Charles M. Tiebout of the University of California at Los Angeles for reading the manuscript and making many helpful comments. Full responsibility must, of course, rest with the author.

Chart 1. Natural Rate of Increase,\* 1940-50



\* Excess of births over deaths.

when we consider the distributional shifts which accompany a rise in numbers of people.

### Spatial Realignments

Another aspect of the boom, perhaps less dramatic but nevertheless having important implications, is the regional variation in growth rates. Part of this variation stems from differences in the natural rate of increase (excess of births over deaths) from region to region and from state to state. Differences in death rates are also observable.<sup>1</sup> If, for the moment, we leave

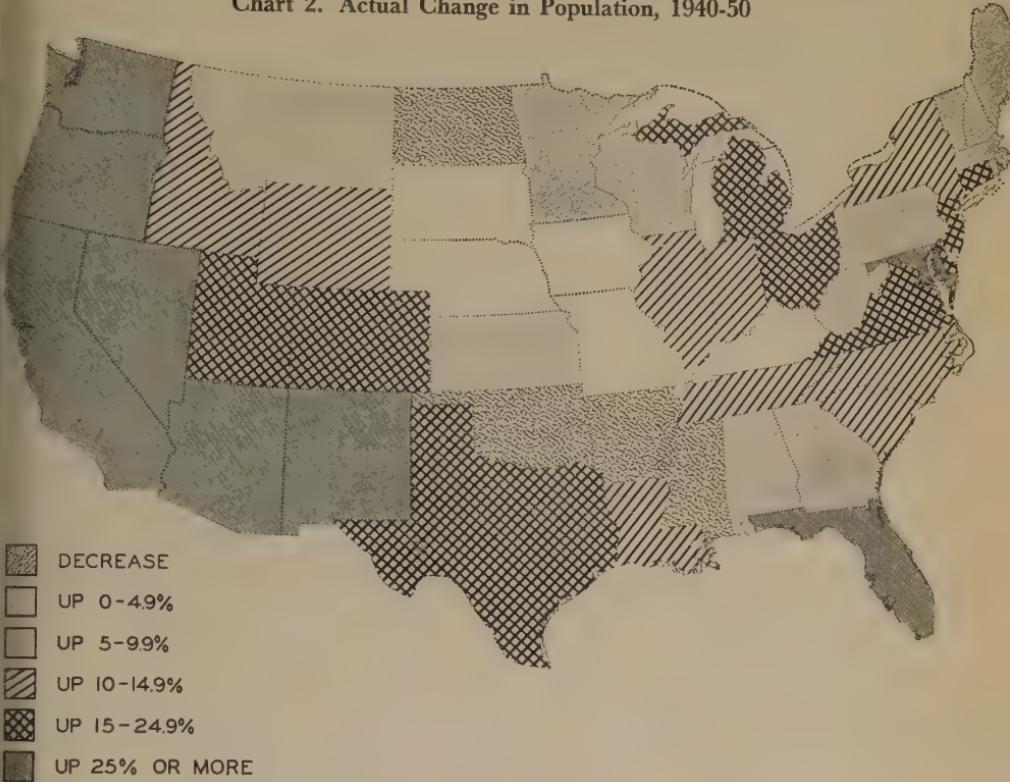
aside interstate migration and assume that growth in state population was affected by the forces of natural increase alone, we should still find considerable variation from the United States average increase of 13 percent from 1940 to 1950.<sup>2</sup>

The pattern of growth stemming from natural increase alone is shown in Chart 1. There we can see the variation among regions and individual states, ranging from an increase of 5 percent in Massachusetts and New York to 25 percent in New Mexico. Wide as this range may seem, it is still

<sup>1</sup> See U. S., Department of Commerce, *Statistical Abstract of the United States, 1958*, Tables 61 and 72.

<sup>2</sup> See U. S., Bureau of the Census, *Current Population Reports*, Series P-25, No. 72, May, 1953.

Chart 2. Actual Change in Population, 1940-50



much smaller than the variation in actually realized rates of growth over the last intercensal decade, which ranged from a loss of almost 5 percent in Oklahoma to a gain of over 50 percent in California.<sup>3</sup> The pattern of realized population growth for individual states is shown on the map in Chart 2. The difference between the two maps is due, of course, to migration, the excess of people moving into a state over those leaving it.

The actual growth pattern shown in

Chart 2 is hardly an unfamiliar phenomenon. The rapid growth in California and other western states and in Florida are well advertised and are as well understood by the man on the street as by demographic specialists. So too is the lagging trend in much of mid-America and New England. Such variations lead to different adjustment problems for different areas—one sort for those of rapid growth, another for those growing slowly or declining.

All too often, though, we are tempted to generalize on the basis of the broad strokes such as those with which the

<sup>3</sup> See Bureau of the Census, *Census of Population, 1950*, Vol. 1, Chapter 1, Table 7.

problem of interregional migration has just been sketched. We tend to think of one set of problems for the West Coast, with its more or less average rate of natural increase coupled with huge net in-migration; another set for the Southeast, which has a much higher rate of natural increase but also has some out-migration; and still another situation in the Great Plains, where considerable out-migration is the rule. Frequently, however, all three and even more situations can be found within a single state. This should be expected, since a state is no more than an arbitrary lumping of the crossroads trading center and the urban metropolis with its sprawling urban fringe; of the fast-growing, medium-sized industrial centers; and of an agriculture in technological transition. In each of these cases the pattern of economic adjustment and human resource reallocation is a different one.

In fact, if we look at the population picture on a county basis, the variation in growth rates is far more dramatic than it is for states, ranging from a decline of 61 percent to a gain of 331 percent between 1940 and 1950.<sup>4</sup> Counties are admittedly only a rough approximation to economic areas, but an examination of county figures shown in Table 1 serves to point out that both fast-growing and declining areas are to be found in almost any region. Also,

although the last census is somewhat out of date, the significant aspect still remains valid, namely that regional planning and development, even within the confines of a single state, must give greater credence to the necessity of formulating programs for a multitude of different kinds of economic and social adjustment problems. Even California has areas faced with shrinking numbers. Even Oklahoma has "boom" towns.

Most of the remainder of this paper will be concerned with a discussion of the problems of population-receiving and population-sending areas, but before proceeding with this it might be well to review briefly some of the forces behind migration and some of its effects.

### The Redistributive Forces

Probably the most important force pushing on population is the general shift from rural to urban areas stemming from the release of workers from agriculture. The long-run tendency toward technological improvement in farming has become so rapid in recent years as to constitute something of a revolution. The marginal productivity of machinery, fertilizers, and irrigation has increased more rapidly than that of labor. At the same time, the cost of labor has risen faster than that of other farm inputs. As a result, millions of people have left agriculture since 1940, at least hundreds of thousands are cur-

<sup>4</sup> *Ibid.*, Table 19.

Region and state	Number of counties	Percentage of counties			Number of counties	Percentage of counties	
		De-clining <sup>a</sup>	Stable <sup>b</sup>	Fast-growing <sup>c</sup>		De-clining <sup>a</sup>	Stable <sup>b</sup>
United States.....	3,069	36	50	14	South Atlantic (cont'd)		
New England.....	67	4	77	19	Virginia <sup>d</sup> .....	100	11
Maine.....	16	4	96	..	West Virginia.....	54	..
New Hampshire.....	10	10	70	20	North Carolina.....	100	5
Vermont.....	14	7	86	7	South Carolina.....	46	4
Massachusetts.....	14	..	79	21	Georgia.....	159	6
Rhode Island.....	5	..	40	60	Florida.....	67	46
Connecticut.....	8	..	50	50	East South Central.....	364	4
Middle Atlantic.....	149	8	66	26	Kentucky.....	120	4
New York.....	61	..	76	24	Tennessee.....	95	2
New Jersey.....	21	..	24	76	Alabama.....	67	6
Pennsylvania.....	67	18	72	10	Mississippi.....	82	1
East North Central.....	435	18	65	17	West South Central.....	471	4
Ohio.....	88	11	69	20	Arkansas.....	75	12
Indiana.....	92	10	68	22	Louisiana <sup>e</sup> .....	65	..
Illinois.....	102	33	54	13	Oklahoma.....	77	8
Michigan.....	83	11	70	19	Texas.....	254	9
Wisconsin.....	70	24	66	10	Mountain.....	278	9
West North Central.....	619	51	42	7	Montana.....	56	32
Minnesota.....	87	22	74	4	Idaho.....	39	18
Iowa.....	99	23	72	5	Wyoming.....	44	16
Missouri.....	115	64	30	6	Colorado.....	30	40
North Dakota.....	53	72	28	..	New Mexico.....	63	41
South Dakota.....	68	60	34	6	Arizona.....	32	40
Nebraska.....	92	72	23	5	Utah.....	14	36
Kansas.....	105	54	28	18	Nevada.....	29	50
South Atlantic.....	553	26	62	12	Pacific.....	17	45
Delaware.....	3	..	67	33	Washington.....	41	24
Maryland.....	24	..	62	38	Oregon.....	133	35
					California.....	39	31
						36	62
						58	44
						7	58
						17	76

<sup>a</sup> Decrease of 5 percent or more.<sup>b</sup> Decrease of less than 5 percent or increase of less than one and one-half times the natural rate of increase.<sup>c</sup> Increase of one and one-half times the natural rate of increase, or more.<sup>d</sup> Independent cities have been combined with contiguous counties.<sup>e</sup> Partial.

rently underemployed, and if current trends continue many more will leave in the next decade.<sup>5</sup>

Along with a declining farm population has come a decline in the demand for the trade and service facilities of the rural small town. Reinforcing this trend is improved personal transportation, which has brought the big city closer to the farmer in time and effort. At the same time, the metropolis has been reaching out to the hinterland as well as to its immediate suburbs via the growth of integrated shopping centers around its periphery.

Superimposed on the rural-urban transition is the phenomenon of inter-regional migration, to a large extent a "search for the sun." In an economy with a rapidly expanding level of per capita real income, many people feel able to consume a commodity called "living in a pleasant climate," intending to pay for this good in the form of a smaller salary than they otherwise would have earned. Paradoxically, however, with so many people having the same idea, the rapidly developing economies of Florida and California may well have provided economic opportunities equal to or better than those forgone by many of the in-migrants. In

fact, a substantial number of people probably migrated there on economic grounds alone, the agreeable weather being an added attraction. In any event, for the present discussion there is no need to judge this situation, but merely to point it out.

Finally, the third main current movement in the population shuffle is suburbanization. In many cases this provides the interesting phenomenon of two areas, one rapidly growing and the other stable or declining, not only juxtaposition, but also inextricably intertwined in their economic functioning. These then are the mainstreams of movement which have a considerable effect on the functioning of our economy aside from any change in total numbers of people.

Many resources must be devoted just to the movement of so many people and their chattels. Still more important is the redundancy of fixed facilities in declining areas coupled with a need for their replacement at the other end of the line. At the same time, for example, that school districts in suburban areas are exhausting their bonding power, empty classrooms can be found in the heart of the metropolis and in rural communities. While such "migrational obsolescence" is especially important in the case of all kinds of public investment, it can be found in the private sector as well, ranging all the way from increasingly empty church-

<sup>5</sup> See Iowa College-Community Research Center, *Iowa: A State in Social and Economic Transition* (Iowa City: State University of Iowa, Bureau of Business and Economic Research, 1958), pp. 2-4, for a discussion of these points.

and picnic groves in rural areas to the mainstreet merchant closing up shop and the small-town funeral director finding himself with a smaller number of customers.

In a less-than-fully-employed economy, of course, migration might provide an added and worthwhile stimulus to total demand. Moreover, even where full or near-full employment is the rule, meeting the needs of people on the move may well spell the difference between near-capacity operation and a lagging economy. Relating the sustained high-level economic activity of the postwar period to the population boom is hardly a unique idea. It is important to realize, however, that the stimulation of the American economy has come not only from an increase in the number of mouths to be fed, but also from the demands stemming simply from geographic realignment.

Besides the economic cost of migration, a good deal of social cost is also involved. Breaking ties with friends and family and moving to unfamiliar surroundings are not altogether painless processes for anyone. Neither are the resultant critical school shortages in suburbia and the rapidly increasing proportion of old people in rural America without sociological complications for communities. That such economic and social costs of migration exist is hardly meant to imply that migration would best be eliminated or

discouraged as much as possible. Much of the past economic growth of the United States has evolved precisely from an environment which not only permitted but provided incentives for resources to move readily into their most productive uses in the most productive places, even when this movement entailed social and economic costs. If we are to meet the challenge of changing tastes and reap the benefits of improved technology, we must continue to rely on the mobility of resources from place to place as well as from industry to industry.

Shifting a factor of production to a new use in a new location, however, is just as much a process of production as the physical formation of the factor itself. We should be just as alert to the possibilities of economy in the production of "place utility" as we are with respect to "form utility." If the social and economic costs of migration can be reduced, we should reduce them. If there are possibilities for realizing the rewards of enhanced technology without migration, we should exploit them. Identifying such possibilities, however, depends on an understanding of the process of economic development in both growing and declining regions.

#### "Receiving" Areas and "Sending" Areas

In areas on the receiving end, not everyone benefits. The retired pensioner

has little vested interest in the population growth in his community. Similarly, the mailman and the schoolteacher have no direct economic stake in area expansion. Finally, most manufacturing is done for a wide market so that growth in numbers at the site of production has little effect on total demand for the product. At the same time, there are certain cost disadvantages for the existing manufacturer inherent in a rapidly growing industrial sector in his local area due to the low mobility of industrial facilities. Thus in the short run higher wage rates are almost inevitable as greater competition for a limited working force develops and even in the long run, although labor force expansion is likely to occur, it may well proceed at a slower pace than the expansion of job opportunities, giving a higher wage bill on a virtually permanent basis as well, as witnessed by the higher money wage rates of workers in large urban centers. The labor cost disadvantages to manufacturers stemming from rapid industrial expansion may be partly or perhaps completely offset by the external economies stemming from complementary production in large industrial agglomerations, but still one would be led to expect manufacturers as a group to be at best passive, and perhaps hostile, to future expansion in their city. The same reasoning would lead one to expect that the roster of civic leaders

would be made up mainly of bankers, publishers, retail merchants, utility officials, landowners, and others engaged in decreasing-cost operations.

Often the spreading of the local tax base is put forward as an advantage for all in local development. Other things remaining the same, the addition of a large industrial facility to the property tax base may well lower the per capita costs of at least some public services, particularly education; but other things can hardly be expected to remain the same. A new factory means more people and many interindustry effects on the community's economic structure, particularly by way of the consumption inputs of the new workers and their families. The ultimate result is something like a larger town all the way around and, disappointing as it may seem, any economies of scale in the provision of public goods are probably more imagined than real. For several dozen communities in the St. Louis Metropolitan Area, Professor Werner Hirsch has shown that

Public education, fire protection, police protection, refuse collection, etc., accounting for around 80-85 per cent of all expenditures, will be furnished in horizontal integrated plants. Growth and consolidation appear to have little, if any, significant effect on per capita expenditures for these services.<sup>6</sup>

<sup>6</sup> Werner Hirsch, "Expenditure Implications of Metropolitan Growth and Consolidation," *Review of Economics and Statistics*, Vol. 41, No. 3 (August, 1959), p. 241.

These same sorts of relationships have also been found in other studies.<sup>7</sup> Increased per capita costs of public goods in larger communities stem not only from higher factor costs and diseconomies in the production process, but also from the higher level of services demanded, often out of necessity.

It was pointed out earlier that not everyone gains in "receiving" areas. Neither does everyone lose in "sending" areas. In towns with declining populations at least it is easy to find a parking place. Also, the presumably lower crime rates and easy-going atmosphere of the stable crossroads community do enter positively into some peoples' preference systems. Of more direct economic consequence is the possibility of the residual economic structure's being left with the more stable and/or growing segments of the original industrial base. Declining numbers do pose a considerable problem for many groups, especially the same kinds of business that are particularly benefited by rapid growth. However, what happens to retail merchants in shrinking communities is really no different from the problem of what happens to buggy whip and kerosene lantern manufacturers when we switch over to automobiles

and electric lights, and further comment on this sort of adjustment process is not appropriate to the present discussion. More important here is a consideration of whether or not there are community-wide problems posed by population stagnation.

Out-migration is regarded as an actual or potential threat by communities throughout the nation. Attempts to mitigate this threat, moreover, provide most of the public interest in and support of community development agencies. In part this is merely a myopic fixation associated with larger numbers, but it also has a supposed economic basis. For example, civic leaders can frequently be found decrying the sad state of affairs where after paying all the extensive costs of rearing and educating their young people, they find the young people going elsewhere to make their economic contributions. The costs of raising children, however, are really sunk costs which we as parents never hope to recover. Our compensation is in seeing our offspring thrive and prosper, and whether they do so in the old home town or somewhere else is more or less beside the point.

It is as absurd to maintain that everyone should continue to reside in the city or state in which he was born as to advocate that every son should assume the occupation of his father. Following either of these policies would

<sup>7</sup> Harvey E. Brazer, *City Expenditures in the United States* (New York: National Bureau of Economic Research, 1959); and Donald Boles and Herbert Cook, *An Evaluation of Iowa County Government* (Ames: Iowa State College, 1959).

certainly lead to lower real incomes for almost everyone. Besides, it is fair to ask how the costs of their education could be recovered by retaining our educated young people. A recovery could be realized only if such people added more to the local tax base than to the costs of serving not only them, but also their progeny. In particular cases this condition may well be fulfilled—in fact, it might even be typical, especially where out-migration leaves the community with a high proportion of young children and retired adults. It would seem rather imprudent, however, to accept it by hypothesis uncritically, particularly in light of the possibilities of diseconomies of scale in the production of public goods and services alluded to previously in the discussion of the problems of "receiving" areas.

Of course, where out-migration is great enough to cause an actually shrinking population it would seem highly probable that increases would take place in the per capita costs of maintaining local government functions, at least in the short run. Moreover, with the high proportion of fixed charges in local government outlays, this short-run situation could be expected to continue for quite a while. Even though these costs might be pared down in the long run through consolidation of local functions, this process might be accompanied by certain social adjustments which are serious at least

in the minds of some, particularly those associated with school reorganization.

It is paradoxical to find that the most vocal complaints about the rising cost of schools are heard at the same time in suburban developments and in the declining towns of rural America, the two extremes in the distribution of economic areas according to rates of population growth. An interesting hypothesis that might be drawn from this situation is that the production function for public goods and services is one of increasing costs in both directions whatever the size of a community. The uncovering of more data bearing on this hypothesis would seem to be an important research contribution, as verification would have important implications for regional economic development policies.

### Migration as a "Real" Issue

One of the real misfortunes in making a pariah of out-migration is that there is a considerable danger of overlooking the fact that it is a sort of productive process itself. Where economies can be effected by getting the right people in the right place at the right time this should not be ignored. More importantly, to the extent that industrial growth can be dispersed in a manner consistent with minimum-cost location for producers, one can make a good case for encouraging it on the grounds of lowering the costs of any needed m-

gration adjustments. While opportunities along these lines may be modest, they are still worth investigating. Also, if we take into account that least-cost locations and the geographic distribution of population are interrelated, the possibilities might be more extensive than would appear at first glance. Finally, even where the loss in productive efficiency would more than offset any economies in forestalling migration, dispersion might still be advocated to reduce the social costs of transition, or possibly for other considerations, such as target dispersal for military reasons.

These special considerations aside, it is important to recognize that lowering the amount of needed migration may conflict with a regional distribution of production best suited to exploit the comparative advantages of alternative locations. For this reason it is important to discourage regional development programs which either result in a meaningless interregional transfer, making one area better and another worse off, or still worse, encourage migration of business establishments which prove detrimental to the firms themselves.

It is for this reason that we can rely safely only on a competitive market so far as the supply of production locations is concerned. If communities want to attract industry from either without or within they should do so by enhancing their comparative advantages. Those places which have little

opportunity for development along this avenue probably have little opportunity for development in any way at all, and perhaps it is better for them to know this at the start. Traditional regional promotion activities can play a legitimate part in this process so far as they result in increased knowledge of the alternatives available to buyers in the market for locations. However, promotion for its own sake does not add to the productivity of the national economy, to the most favorable position for a locating firm, or possibly even to the economic stability of the "receiving" communities in the long run.

In the foregoing analysis an attempt has been made to focus attention on the regional dimension of population growth and the problems of adjustment thereto. Through time, with developing technology, the economically optimum distribution of population changes. Concurrently, the actual distribution of population changes too, as a result of regional variations in birth and death rates and interregional migration. The appropriate *economic* adjustment can be made in one of two ways: (1) further realignment of population or (2) geographical reallocation of production facilities. Both of these paths of adjustment involve costs. Thus, the optimum *economic* adjustment would be represented by that combination of labor and capital mobility producing the greatest excess of

the resultant efficiency gains over the concomitant transfer costs.

Another alternative is also possible. Even for that adjustment which involves the maximum surplus of efficiency gains over economic transfer costs, the noneconomic disadvantages of increased mobility of either labor or non-labor resources may exceed or at least partially offset any net economic gains, thus partially or wholly damping the underlying economic pressures for interregional migration. Moreover, in a society with an expanding per capita real income such noneconomic considerations can be expected to weigh more heavily in both individual and group preferences. Also, with an expanding

technology and progressive improvements in transportation and communication the magnitude of the needed adjustment may well increase, although such a trend could be offset by a tendency toward greater uniformity in birth and death rates in different sections of the country.

In any event, as the nation's real income grows and as the noneconomic costs of the necessary regional adjustment to an evolving technology also grow, the choice between economic optimum and less than optimum geographical allocation of human and capital resources can be expected to become a more challenging problem for our society.

# A Theory of the Declining Buick

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RECENTLY a newspaper advertisement informed its readers that "this year's Buick owners are the most enthusiastic we've ever heard from." Yet Buick's sales have slipped to less than 5 percent of the total market, well below the 1950-58 mean of 8 percent and the "golden years" (1954-56) average of 9.5 percent. Tables 1 and 2 afford stark testimony to Buick's sag.<sup>1</sup> One explanation of the marked decline is as follows: "Automen guess that it [Buick] is . . . too low and hard to get into, has a cramped back seat."<sup>2</sup> Although present style may offer a surface rationalization, it is a tenuous basis of explanation, completely devoid of analytical proof. (Besides, the decline stems from 1957, not 1959.) The answer is far more subtle with its roots

firmly entrenched in a current theory of consumer behavior.

## The Theory of Consumer Behavior

Currently in vogue as explanation of the shape of the consumption function are the absolute, permanent, and relative (Duesenberry) income hypotheses.<sup>3</sup> The three may be formally classified as aggregative theories but their origins stem from the analysis of individual behavior. Thus, although retaining the macro titles of these theories, it is the fundamentals of microanalysis of consumer behavior to which we turn in the following pages. The permanent income thesis may be viewed as an extremely sophisticated version of the absolute hypothesis with the individual consumer having a much broader spending horizon than the income for

<sup>1</sup> The tables start with 1954 data since in that year General Motors reached the position of 50 percent market domination and Buick moved past Plymouth into the number three position in sales popularity. In the early 1950's Buick ranked fourth with a market penetration of just under 8 percent.

<sup>2</sup> *Time*, April 27, 1959, p. 85.

<sup>3</sup> James Duesenberry, *Income, Saving, and the Theory of Consumer Behavior* (Cambridge: Harvard University Press, 1949); and Milton Friedman, *A Theory of the Consumption Function* (Princeton: Princeton University Press, 1957).

Table 1. Production as a Percentage of Total American Automobiles Produced

Make	1954	1955	1956	1957	1958	1959	1954- Mec.
General Motors							
Chevrolet.....	25.7	23.0	27.9	24.9	29.6	27.0	26
Pontiac.....	6.7	7.3	5.7	5.6	5.2	7.5	6
Oldsmobile.....	7.9	8.1	7.5	6.4	7.3	6.9	7
Buick.....	9.6	9.8	9.2	6.7	6.1	4.4	8
Cadillac.....	2.2	1.9	2.4	2.5	2.9	2.7	2
Total.....	52.1	50.1	52.7	46.1	51.1	48.5	50
Ford.....	25.3	22.1	23.6	24.9	24.4	25.1	24
Plymouth.....	7.2	9.4	7.8	10.7	8.6	7.7	8
All others.....	15.4	18.4	15.9	18.3	15.9	18.7	16
Grand total.....	100.0	100.0	100.0	100.0	100.0	100.0	100

Table 2. Rank by Production

Make	1954	1955	1956	1957	1958	1959
Chevrolet.....	1	1	1	1	1	1
Ford.....	2	2	2	2	2	2
Buick.....	3	3	3	4	5	7
Oldsmobile.....	4	5	5	5	4	5
Plymouth.....	5	4	4	3	3	3
Pontiac.....	6	6	6	6	6	4

Sources: 1954-57, *Automobile Facts and Figures*, 1958 Edition, p. 10; 1958, *Wall Street Journal*, January 5, 1959, p. 28; and 1959, *Wall Street Journal*, June 26, 1959, p. 20.

a single year (his measured or absolute income). However, both theories have their subjective roots in what may be termed the neoclassical rationalism in which man appears as a creature equipped with an innate abacus that quickly weighs assorted variables to arrive at a decision which maximizes the net advantages of the various alternatives open to him. The distinguishing characteristic of such an individual is that his calculations are made without consideration of the spending decisions of others. Duesenberry, on the other hand, holds that consumption spending has its roots

partly in the spendings of others. It is an economic translation of the familiar "keep up with the Joneses" philosophy. Who is right? Both theories give us insight into the complicated problem of consumption. For it is certainly not absurd to imagine that a consumer may at one instant be extremely price conscious and at the next succumb to the lure of a new article simply because it gratifies his sense of growing economic status.

While the Duesenberry hypothesis has many facets, it is distinctly Veblenian with, however, an emphasis upon developing quantitatively wor-

able concepts for the analysis of economic data rather than a violent attack on neoclassical normalcy. Note the similarity of meaning if not of tone of the following:

We might call this the "demonstration effect." People believe that the consumption of high quality goods for any purpose is desirable and important.<sup>4</sup>

The motive that lies at the root of ownership is emulation. . . Relative success, tested by an invidious pecuniary comparison with other men, becomes the conventional end of action.<sup>5</sup>

Then the remarkably apropos statement by Duesenberry:

In our society people may think that they expend effort to get a Buick instead of a Chevrolet because the Buick is more comfortable or goes faster. But this does not in the least prove that part of the basis for the purchase is not the maintenance of self-esteem.<sup>6</sup>

Let us tie this in with one more statement by Duesenberry:

There is a generally agreed upon scale of ranks for the goods which can be used for any specific purpose.<sup>7</sup>

It should be clear from these quotations that goods are not ranked upon their technical excellence alone, for this implies that any Army field jacket

should sell for more than a mink stole because it has been shown that the jacket provides more warmth. Equally important is Duesenberry's general statement of ordinal utility. That there are goods associated with status in the society (pecuniary or otherwise) is not a refutable fact. It is important to emphasize the significance of Duesenberry's example of ordinal utility—it was obvious to him in the late 1940's that Buick outranked Chevrolet.

### The Automobile Market

The automobile industry is a classic example of oligopoly with the shape of the oligopolist's demand schedule one of the enigmas of microanalysis. However, shape of the curve is not the thorniest problem in untangling automobile demand as it pertains to Buick; rather it is to find out just who the direct competitor is. For example, excluding the foreign or "foreign challenge" cars, one can probably get substantial agreement that the lowest-priced Chevrolets, Fords, and Plymouths form one distinct market. At the other end, Cadillac, Imperial, and Lincoln top the automotive hierarchy. Between these extremes, the question of direct rivalry is a moot point. In the standard theory of oligopoly, the individual seller is afraid to change

<sup>4</sup> Duesenberry, *op. cit.*, p. 27.

<sup>5</sup> Thorstein Veblen, *The Theory of the Leisure Class* (New York: Modern Library, 1934), pp. 25 and 33.

<sup>6</sup> Duesenberry, *op. cit.*, p. 29.

<sup>7</sup> *Ibid.*, p. 22.

price on his own initiative because he fears retaliation either from his rivals or from the recognized price leader. In the great middle ground of the automobile industry, it is hard to apply the standard analysis.

The question arises as to whether this situation of "tangled competition" has always existed. The 1953 *Annual Report* of General Motors, which is the most recent report to discuss individual models as such rather than automobile production in general, offers a clue.<sup>8</sup> It is clear from the description and the placing of the models that the General Motor's hierarchy was Cadillac, Buick, Oldsmobile, Pontiac, and Chevrolet. The 1953 report also made a seemingly innocuous announcement that in 1954 Buick would add the new Century to its line, fitting the Century between the Special and the Super. Thus Buick expanded at its cheaper end; and sales rose to nearly 10 percent of the total auto sales, a position bested only by the perennial Big Two.

It is now necessary to attempt a determination of the shape of the demand curve, not of the oligopolist, but of the individual models of one of the oligopolists. Chevrolet and Ford of the

pre-Impala-Galaxie days provide starting point. If it were not for fear of retaliation, Chevrolet could expect a definite unkkinked downward-sloping demand curve. With a significantly lower price it would no doubt cut into Ford sales. However, the more complex case, in which the identity of the rival becomes less well-defined, presents a different problem, and yet one in which more realistic statements can be made. Let us make only the assumptions that one specific model, call it A, is generally ranked higher than B in consumer esteem and is also priced higher than B. One thing to be remembered is that in what may be termed the "posted-price" world, the actual cost of a car was difficult to ascertain, especially when there was a trade-in. However, if A starts lowering the differential cost to consumers between A and B, by good trade-ins, emphasis of the differential, and so on, it can be assumed that A's sales will tend to rise in the short run. But there is a danger. Though A may temporarily take sales away from B, it may also run the risk of losing its rank of superiority to C. The lowering of price or even the increasing emphasis on the sale of cars at the lower end of the model's series may adversely affect its position in the hierarchy of automobiles. Certain car

<sup>8</sup> General Motors, *Annual Report for 1953*, pp. 21-24.

Table 3. Manufacturer's Suggested Retail Prices for Buick, 1949-58

Model	Special	Century	Super	Roadmaster
1949.....	\$1,861.00	.....	\$2,192.00	\$2,782.00
1950.....	1,957.00	.....	2,157.00	2,656.00
1951.....	2,138.92	.....	2,356.26	3,043.62
1952.....	2,192.92	.....	2,545.16	3,177.88
1953.....	2,255.32	.....	2,696.17	3,254.36
1954.....	2,265.32	\$2,520.17	2,711.17	3,269.36
1955.....	2,291.32	2,548.17	2,876.17	3,349.36
1956.....	2,372.00	2,980.00	3,205.00	3,458.00
1957.....	2,624.00	3,311.00	3,638.00	3,996.00
1958.....	2,700.00	3,316.00	3,789.00	4,667.00

Source: Unpublished data furnished by Buick Motor Division.

Table 4. Buick New Car Registrations

Calendar year	Special	Century	Super	Roadmaster	Total
1949.....	82,330	.....	210,939	79,156	372,425
1950.....	233,057	.....	228,457	74,293	535,807
1951.....	161,186	.....	168,441	62,658	392,285
1952.....	127,438	.....	135,827	47,541	310,806
1953.....	203,910	.....	177,668	72,742	454,320
1954.....	221,343	91,551	139,384	61,219	513,497
1955.....	383,222	161,178	129,808	63,671	737,879
1956.....	312,273	93,283	74,671	49,144	529,371
1957.....	219,749	63,545	67,779	43,480	394,553
1958 <sup>a</sup> .....	149,988	44,819	41,925	26,086	263,871

<sup>a</sup> Component figures will not add to the total because a breakdown of registrations for Oregon for the second half is not available.

Source: Unpublished data furnished by Buick Motor Division.

possess an aura of opulence that is far more important to sales than the shape of the tail-fins.

### Buick Today

The following are excerpts from city newspapers or national magazines displaying Buick advertisements:

For only about \$200 more than the best similar models of the leading "low-priced three" . . . you can own this Buick . . . An important car with an important name.

I know I'm driving the best car in America today, that I saved over \$1000 in the

initial purchase, and will save over the months to follow in gasoline and upkeep.

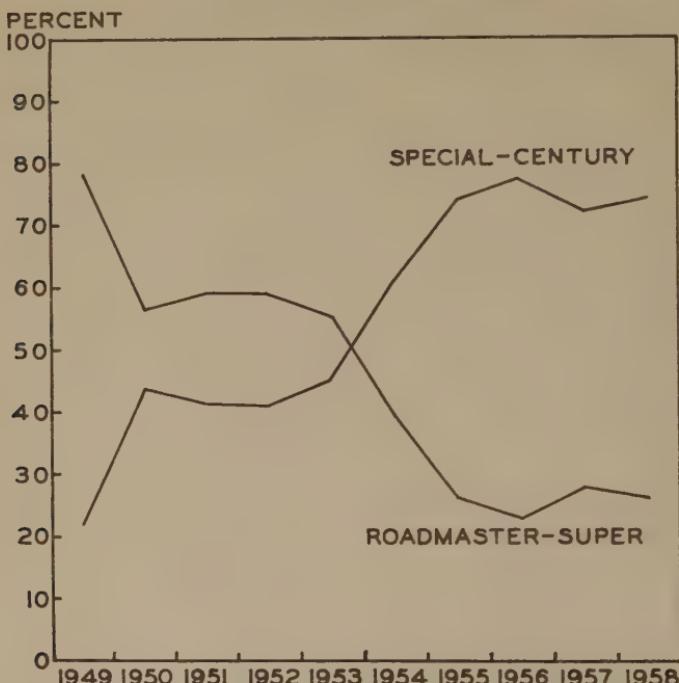
Compare these with recent Chevrolet advertisements:

Even the "price-is-no-object" people see no point in paying more.

As fine a car as anyone (including wealthy people) could want.

If one accepts the fact that an automobile, besides being a type of transportation, is also an emblem of opulence or lack thereof, then it becomes quite clear that combining an image

Special-Century and Roadmaster-Super Sales as Share  
of Total Buick Sales, 1949-58



of affluence and one of economy may be less than wise. To be blunt, how can one tell the world of newly acquired gains by buying a Buick if Chevrolets cost almost as much?

Just where did Buick stumble? A precise answer cannot be given, but Tables 3 and 4 and the accompanying chart offer at least a partial explanation. Very little can be gleaned from Table 3 alone, and this in itself is interesting. One with no other information save the price list would hardly have predicted the marked shift in sales from the higher-priced (Super-

Roadmaster) to the lower-priced (Special-Century) end of the scale shown in Table 4 and as brought out even more vividly in the chart. Whether there was a conscious effort to sell more of the lower-priced cars can be answered only by Buick or GM executives, but let us recall that Buick introduced the new Century in 1955, the year it replaced Plymouth in the sales rankings. In 1954, with sales still over 50 percent in the higher-priced models, Buick was unquestionably GM's number two automobile in status and appeal. Naturally, as it carried the

image of opulence against its rivals at competitive prices, it temporarily won the day. But it appears that familiarity bred contempt.

Today there is not a significant difference in price between the cheaper models of Oldsmobile, Pontiac, and Buick, not to mention the challenge from below, the Impala. (Cadillac, on the other hand, is materially higher.) One might ask then, Why have Buick sales declined below its two team rivals? Again, no definite answer is available, but it may well be that the "has-been" has a rougher road than the "never-was." Once a car slips from its established place in the generally accepted hierarchy of cars, it may find it exceedingly hard to regain lost ground.

A few examples of this generally accepted hierarchy may help to form a clearer picture. Edsel sales have been less than phenomenal. This should offer no surprise when one attempts to "fit" Edsel into the Ford scheme, for there simply is no room between Ford and Mercury. On the other hand, the Impala has been well received. Its success may be attributed to "upgraded disassociation." When one sees a Bel-Air drive by . . . there goes a Chevy. When one sees an Impala . . . there goes the Impala. It seems that Chevrolet is trying a definite upgrade with

the Impala in the forefront. One may argue that GM is attempting to strengthen the other members of its team in the event that Buick's decline cannot be halted. For if there is no economic logic to having five specific models in the GM team,<sup>9</sup> the further tarnishing of Buick's reputation may make it expendable.

### Conclusion

In the latter part of April, 1959, Buicks were sent to 135 cities to see what "key people" thought of the new model. They could have stayed at Flint, for Buick's primary problem is not its exterior appearance but its fading reputation as a symbol of high-middle-class affluence. What is the solution? The upgrading of its other models has been suggested, for GM sales have held their own even with the Buick sag. In any event it will be a hard road back which many a good car has found too rugged. At the present time Buick should be more concerned with rebuilding a superior image rather than a better bumper.

<sup>9</sup> In fact, the rivalry between divisions of the same automobile manufacturer may be a form of economic waste. It is difficult to cite other examples of sellers offering two or more products in the same market to roughly the same prospective group of consumers.

The reader should not infer that physical improvements providing more comfort, efficiency, and durability are not important, but Buick's present problem is a matter of emphasis. In the higher-priced car field serviceability is less important than prestige. Buick must blend its dollar-saving advances into

its image to the consumer so as not cheapen its desired picture of prosperity. Economy and opulence may be mixed judiciously in the United States where the automobile is a favorite badge of the status-minded consumers.

# The Concepts of Economic Stability and Economic Growth\*

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IT IS generally accepted by economists, as it is by those working in other disciplines, that terminology, definitions, and usage are more important than the layman might suppose. Coinage and use of apt terms facilitate intelligent discussion and investigation of the various problems with which economists are concerned. Usage frequently provides much illumination on the nature of the problems which are of particular concern in any period and on the basic concepts or attitudes determining the approach to those problems. Adequate definitions, if they are widely and consistently accepted, not only help the individual economist to work in a more disciplined and effective fashion; they also make it possible for all those working in the same area to understand one another readily and to profit from and build on each other's results.

Lack of attention to terminology, definitions, and usage, or carelessness

with respect to these matters, frequently causes confusion and impedes progress, especially in the field of public policy; yet there are a number of terms which have been and still are rather loosely used by many economists and many public officials concerned with economic policy. In some cases, the same term is used repeatedly over a number of years and in a number of different situations, but the connotations, and even the denotative meaning, of the terms are gradually — sometimes almost unconsciously — altered.

The terms "economic stability" and "economic growth," for example, have been used very frequently since the end of World War II both by economists and by public officials. Despite the frequency with which these terms have been used, however, the terms themselves have not always been construed or applied in the same way.

It is also true that these terms have not always been assigned the same degree of importance or priority with respect to one another by those professionally concerned with public economic policy. Thus there have been

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times when stability has been emphasized and growth has received little if any attention. At other times growth has been emphasized and stability, at least overtly, has been substantially neglected. More recently it has been fairly common to link the two together and talk of "economic stability and growth" as the principal goal of public economic policy.

## I.

A review of the discussions which preceded the passage of the Employment Act of 1946 and of the first few economic reports submitted to Congress by the President pursuant to the provisions of that act makes it abundantly clear that at the end of World War II and for several years thereafter the term "economic stability" was being used with considerable frequency by both economists and responsible public officials.

Stability was generally not defined clearly by those who used the term. It was usually obvious, however, that they applied it in a negative rather than in a positive fashion. In some contexts it meant avoiding inflation, or at least avoiding a heightening of inflation. More frequently, however, stability was used in the immediate post-war period to mean avoiding recession, or at least avoiding a deepening of recession.

The *Midyear Economic Report of the President* transmitted to Congress in July, 1947,<sup>1</sup> for example, reflected the continued concern that a serious recession might occur as a result of the

transition from a war economy to peace economy. Thus after referring to the desirability of completing "the transition to a permanently stable peacetime economy," President Truman stated: "Adjustment through recession or depression is tragic, costly and wasteful. Moderate adjustment made in time, can accomplish more than drastic measures in a crisis produced by delay or neglect."<sup>2</sup>

At the close of the decade, however, attention was shifting from economic stability toward economic growth. The recession of 1949 had proved relatively brief and mild. The *Economic Report of the President* transmitted to Congress in January, 1950,<sup>3</sup> still reflected much concern with stability, but growth was now mentioned, too, and President Truman indicated his belief that the United States needed both stability and steady economic growth.

Neither of these terms was defined and it is obvious to the thoughtful reader of this *Report* that the term "stability," at least, was being used in an ambiguous fashion. On the first page the recession of 1949 was referred to as a "relatively safe passage from inflation to greater stability." Shortly thereafter, however, President Truman stated flatly, "We have regained stability."<sup>4</sup> Exactly what meaning the reader is to attach to the term "stability" becomes even more problematical when he reaches page three and reads: "We should now seek to establish a course that will complete the recovery. . . ."

<sup>1</sup> *Ibid.*, pp. 1-2.

<sup>2</sup> Washington: United States Government Printing Office, 1950.

<sup>3</sup> *Ibid.*, p. 2.

<sup>4</sup> Washington: United States Government Printing Office, 1947.

During the early 1950's the term "economic growth" was used with increasing frequency by those primarily concerned with public policy. Only rarely was it defined, but it was generally clear that it was held to be integrally related to increasing employment opportunities, and sometimes to increasing productivity, and/or to a rising level of production as well.

In the letter of transmittal accompanying the *Economic Report of the President* submitted to Congress in January, 1955,<sup>5</sup> for example, the main emphasis was placed on economic growth, while secondary emphasis was placed on security. "In the future as in the past," President Eisenhower stated, "increases in productivity and in useful employment opportunities will be the core of economic expansion." A little farther on in the same letter, the President wrote: "The wise course for Government in 1955 is to direct its program principally toward fostering long-term economic growth rather than toward imparting an immediate upward thrust to economic activity."<sup>6</sup>

## II.

Until very recently, when both economic stability and growth were discussed in the same paper or in the same public statement, "stability" was frequently referred to as a suitable goal for short-run policy and "growth" as a suitable goal for long-run policy. In such discussions also, while the term "stability" was never clearly de-

fined, it was generally applied in the negative sense described previously.

More recently, however, there has been increasing recognition of the fact that it is impossible to keep short-run and long-run considerations neatly enclosed in separate compartments in the formulation of public policy. For one thing it has become increasingly apparent that policies which are adopted to cope with so-called short-run problems have a bearing on long-run developments as well, and that policies adopted to cope with long-run problems also have a bearing on short-run developments. Even more fundamental, however, is the fact that in an economy as large, as highly developed, and as rapidly changing as ours, it becomes increasingly difficult to draw and maintain a satisfactory distinction between long-run and short-run considerations.

In the not very distant past many economists might have agreed that the short run meant any period of time shorter than one complete business cycle. They might have agreed also that in dealing with the short run, the matter of economic growth could be ignored with impunity, since the amount of growth in the short run was generally negligible.

Today, however, a large and increasing number of economists in the United States realize that if an economy as large as ours grows at an annual rate of 3½ percent, the growth of a single year accounts for a real increase of approximately \$15 billion in net national product. They realize, too, that with our population and labor force increasing at their current rates, growth must be maintained at all times if

<sup>5</sup> Washington: United States Government Printing Office, 1955.

<sup>6</sup> *Ibid.*, pp. iv-v.

"useful employment opportunities" are to be created and maintained for all "those able, willing, and seeking to work." They are also aware of the corollary of these facts, namely, that even a comparatively short cessation or interruption of economic growth will result in a large increase in unemployment.

In other words, we must run just to keep up with ourselves. But, as Harrod and Domar, among others, have demonstrated, the rate of speed at which we run is also important.<sup>7</sup> If we proceed too slowly, we shall still be faced with increasing unemployment. On the other hand, a sharp increase to a rate above that which can be maintained for a long period of time will result in an unhealthy inflationary situation which will pave the way for future contraction or recession.

Thus in 1955 a number of economists were in substantial agreement with the position of Everett E. Hagen of the Massachusetts Institute of Technology when he stated: "Fiscal measures which cushion and counteract short-run economic fluctuations . . . are . . . not only consistent with long-term growth; they are essential supports of it."<sup>8</sup>

<sup>7</sup> See, e.g., R. F. Harrod, *Towards a Dynamic Economics* (London: Macmillan, 1948); Evsey D. Domar, *Essays in the Theory of Economic Growth* (New York: Oxford University Press, 1957); W. J. Baumol, *Economic Dynamics* (New York: Macmillan, 1951); William Fellner, *Trends and Cycles in Economic Activity* (New York: Henry Holt, 1956); James S. Deisenberry, *Business Cycles and Economic Growth* (New York: McGraw-Hill, 1958).

<sup>8</sup> "Federal Taxation and Economic Stabilization," *Federal Tax Policy for Economic Growth and Stability*, Papers submitted by

Within the past few years it has come increasingly common for economists and public officials to link the words "stability" and "growth" together and to use them as one term in discussions of public economic policy. The two are conceived of as being closely interrelated, indeed, interdependent. Economic stability is thought of not in the dictionary sense of permanence or absence of change, but rather in the sense of minimum fluctuations around the growth trend. Growth itself is generally equated with the real increase in net national product, though there is not complete unanimity on this score.<sup>9</sup>

It is fairly easy to understand why the two words "stability" and "growth" are so often linked together and used in one term in discussions of public economic policy and especially in discussions concerning the Employment Act of 1946.<sup>10</sup> Each of these words, it

panelists appearing before the Subcommittee on Tax Policy of the Joint Committee on the Economic Report (Washington: Government Printing Office, 1956), p. 66.

<sup>9</sup> Disagreement exists not only with respect to how economic growth should be measured, but also with respect to what economic growth is. Although many economists now conceive of economic growth as the increase in *actual* production net necessary allowances for maintaining the existing stock of goods intact, some economists believe economic growth is more properly conceived of as the increase in the capacity of the economy to produce goods and services. See, e.g., the papers prepared by eminent economists for *Federal Tax Policy for Economic Growth and Stability*, *op. cit.*, and *Federal Expenditure Policy for Economic Growth and Stability*, Papers submitted by panelists appearing before the Subcommittee on Fiscal Policy of the Joint Economic Committee (Washington: Government Printing Office, 1957).

<sup>10</sup> According to Section 2 of the Employment

believed, expresses one aspect of the type of economic process which is consistent with the stated objectives of the Employment Act and, indeed, necessary for achieving those objectives. Yet neither of them by itself, it is recognized, is sufficient. The word "stability" by itself is not satisfactory, since we must know something of the level at which stability is to be maintained. Moreover, the level which is satisfactory now will be unsatisfactory a year from now and still less satisfactory a year after that. On the other hand, the word "growth" by itself is not completely satisfactory either. Growth, an increasing number of public officials believe, should proceed at a rate such that it can be maintained in the long run.

### III.

Joint use of the words "stability" and "growth" in this fashion is not only fairly common among public officials concerned with economic policy.

ment Act of 1946, "It is the continuing policy and responsibility of the Federal Government to use all practicable means . . . for the purpose of creating and maintaining, in a manner calculated to foster and promote free competitive enterprise and the general welfare, conditions under which there will be afforded useful employment opportunities, including self-employment, for those able, willing and seeking to work, and to promote maximum employment, production, and purchasing power."

Subsection (c) 4 of Section 4 states that one of the duties and functions of the Council of Economic Advisers shall be "to develop and recommend to the President national economic policies to foster and promote free competitive enterprise, to avoid economic fluctuations or to diminish the effects thereof, and to maintain employment, production, and purchasing power." Public Law 304, 79th Congress.

It is also in accord with the opinion of a number of reputable economists today. In some circles the expression "economic growth and stability" has virtually become a cliché. It is a popular slogan used to refer in succinct yet comprehensive fashion to the basic goal of public economic policy.

The first page of a joint statement issued by the Board, the Standing Committees, and the National Council of the National Planning Association on the tenth anniversary of the signing of the Employment Act of 1946, for example, contained the following sentence: "After ten years of experience under the Employment Act, there is no longer any important controversy about the government's basic responsibility for the promotion of economic growth and stability."<sup>11</sup>

If the matter is approached analytically, however, it appears that this usage of the expression "economic growth and stability," widespread though it is, is actually undesirable for a number of reasons. Attention has already been called to the fact that the meaning generally ascribed to the word "stability" in current discussions of economic policy is very different from the dictionary meaning. It is different, too, from the meaning generally attributed to the word only a few decades ago by economists, and it is certainly different from the meaning currently ascribed to "stability" by economists and policymakers when they discuss price stability. Indeed, it may be argued per-

<sup>11</sup> *The Employment Act Past and Future, A Tenth Anniversary Symposium*, Gerhard Colm, ed., Special Report No. 41 (Washington: National Planning Association, 1956), p. 79.

suasively that the concept of "stability" has been shrouded with ambiguity ever since it was first used in discussions of public economic policy and that little if any progress has been made in eliminating the ambiguity.<sup>12</sup>

Some of the reasons for this state of affairs were set forth clearly and cogently several years ago by Walter Fackler, assistant director of economic research, Chamber of Commerce of the United States.

Economic stability as a policy goal in a changing world is not a simple concept. It is rather, in the jargon of Washington, a "ball of wax" of remarkable pliability. People do not want stable incomes; they want rising incomes. They want a stable general price level, but they also want higher prices for the products and services they sell and lower prices for the things they buy. They want technological progress, greater productivity, opportunity, and economic freedom of choice. They want normal market adjustments to allocate resources and direct production so as to obtain maximum output composed of the "right things" at minimum cost. But they are understandably vexed or alarmed when market adjustments affect them adversely, when they must move to another "line" or suffer permanently reduced income. It turns out that people do not want stability—at least not too much of it. They want security from the threat of unemployment, disagreeable economic pressures, and income losses. In short, stability as a policy goal, beyond the vague injunction to public officials that they must learn how to keep us out of situations of mass unemployment and advanced inflation, is actually a mass (mess) of conflicting goals.<sup>13</sup>

<sup>12</sup> See, e.g., Rutledge Vining, *Economics in the United States: A Review and Interpretation of Research* (Paris: United Nations Economic and Social Council, 1956), pp. 43 ff.

<sup>13</sup> "Government Spending and Economic Stability," *Federal Expenditure Policy for*

Current usage of the word "stability" in discussions of economic policy therefore, bound to be confusing. Present popularity can only be deplored. Complete elimination of the word "stability" from discussions of economic policy is not likely, but has much to recommend it.

#### IV.

The word "growth" by itself, nevertheless, is not adequate to describe the principal goal of public economic policy. It would be preferable to use an expression which is more explicit or precise. A possible alternative which suggests itself is "a stable rate of growth." This expression appears to have several advantages over the currently popular "economic growth and stability" and it is, in fact, already being used by some theoretical economists working in this field.

Upon further consideration, however, it appears that the expression "stable rate of growth" is not really satisfactory for the purpose of describing our goal either. For if the adjective "stable" is not clearly and narrowly defined, it is subject to the same ambiguity and fuzziness as the noun "stability"; and if it is to be clearly and

*Economic Growth and Stability*, op. cit., p. 325. Fackler himself defines stability as "orderly economic adjustment or the avoidance of major economic maladjustments." But he adds, "Stability . . . also demands flexibility and sufficient latitude for the normal and necessary fluctuations to occur in output, prices, incomes, and employment which must take place if the severities of major dislocations are to be avoided." He labels his concept "flexible stability" as "stable flexibility."

narrowly defined, how shall we define it?

Investigation of the literature in this field in recent years reveals that when some economists mention a "stable rate of growth" they mean a "steady" or "constant" or "unchanging" rate of growth. When some economists mention a "stable rate of growth," they mean a rate of growth which, in the absence of external disturbing forces, will tend to maintain itself. Still other economists, however, would describe this phenomenon as an "equilibrium rate of growth" which may or may not be stable. To their way of thinking, it is "stable" only if small departures from the equilibrium rate tend to set in motion forces which will restore the equilibrium rate. (It is "unstable" if small departures tend to set in motion forces which cause the rate of growth to move farther away from the equilibrium rate.<sup>14</sup>) Matters are further complicated by those who use the term without defining it at all and by those who use it sometimes in one sense and sometimes in another.<sup>15</sup>

<sup>14</sup> See, e.g., the cited works of Harrod, Domar, and Deusenberry. Baumol calls attention to the fact that even the last and most refined of these concepts is inadequate because it does not consider the speed of the reaction, and in dynamic analysis speed is very important. *Op. cit.*, pp. 107 ff.

<sup>15</sup> For example, Roy Blough of Columbia University, a former member of the Council of Economic Advisers, in an essay contributed to the National Planning Association Symposium referred to earlier, writes: "Economic stabilization has come to mean stabilization of unemployment at an acceptably low total, together with stabilization of the price level. In an economy marked by a growing labor force and rising productivity a stabilized economy as thus defined must be a growing economy. Whatever other factors

The first and simplest definition referred to in the preceding paragraph offers a concept which appears well suited for policy purposes in the sense that it is precise and nontechnical, and in addition it suggests several synonyms which might be substituted for the ambiguous adjective "stable" in the interest of greater clarity. We might instead describe our goal as a "steady rate of growth" or a "constant rate of growth" or an "unchanging rate of growth."

This usage, however, while it would resolve some of the terminological difficulties involved in stating the general nature of the goal of economic policy, is subject to a much more basic type of criticism. As several economists working in this field have demonstrated, it is possible to have a constant or unchanging rate of growth coupled with chronic unemployment, because the rate of growth is too low.

Theoretically, this difficulty may be circumvented by designating a specific appropriate value for the constant rate of growth or by specifying that the rate of growth must be appropriate (i.e., neither too low nor too high). In fact, it has been assumed in much of the recent economic literature on this subject that an unchanging rate of economic growth is desirable, provided that the rate itself is appropriate. If this assumption were valid, desirable public policy would result if we could

may be necessary for stable growth, total spending — consumer, investment, and government combined — must increase at a rate consistent with the required growth." "Is our Tool Chest Adequate For Maintaining Economic Stability?" *The Employment Act Past and Future, op. cit.*, p. 101.

determine the appropriate rate and then formulate and adopt those policies which would result in the achievement and/or maintenance of that rate.

This basic assumption, however, deserves careful consideration and evaluation. We wish to have sustained growth and to avoid sharp fluctuations in economic activity; but do we really want an unchanging or constant rate of growth?

Actually what we want is a rate of growth which enables us to make full use of our economic resources. Since these resources themselves, either singly or in combination, do not necessarily grow at an unchanging or constant rate, an unchanging rate of growth in our economy would not assure that they would all be employed.

To take a single example, we know that not many years from now the annual increment to our labor force will be somewhat larger than it has been during the past decade, because of the change in the birth rate which occurred during World War II. Assuming that all other factors in the situation remain the same, a rate of growth somewhat larger than that which we now enjoy will be advantageous.

Flexibility in the rate of growth is, therefore, desirable. An additional qualification of a rate of growth which may be considered desirable in any specific period is that it must not create conditions or set in motion forces such that it will be impossible to secure and maintain a beneficial rate of growth in the future.

It is tempting to apply the term "optimum rate of growth" to this con-

cept of a flexible rate of growth which would enable us to make full use of our economic resources continuously. However, this term too might hinder us rather than help us in defining a goal in achieving our goal; for the word "optimum" in this expression suggests that at any one time there could be only one value which would satisfy the conditions specified.

This would be true in an economy in which a single homogeneous commodity is produced. It would also be true in a more diversified economy in which both the proportions in which the factors of production are combined and the relation between factor-inputs and product-output are uniform in all sectors of the economy. It might also be claimed that it would be true in a diversified economy if the proportionality of factors and the input-output relationship changed for individual sectors of the economy but remained uniform for the economy as a whole.

Each of these hypothetical economies may furnish a useful starting point for certain types of theoretical analysis; but they are too far removed from reality to help us in the formulation of a suitable general goal for economic policy. In the real world the over-all rate of growth which is realized during any period is determined by the rate of growth of each of the many separate sectors of the economy and the relative magnitude of each of those sectors at the beginning of the period. Since the proportionality of factors, input-output relations, growth patterns, and relative magnitude differ for different sectors of the economy, it is possible to conceive of a number

different over-all rates of growth which might fulfill the specified criteria in any given period.

## V.

It may be argued, of course, that given the existing market system and institutional framework this would not be so; i.e., that given the existing market system and institutional framework, in any given period, there could be only one rate of growth which would meet the specified criteria. However, unless "institutional framework" is defined to include the existing government and public policy the argument is not valid. If "institutional framework" is defined to include the existing government and public policy,<sup>16</sup> these assumptions, although they may be employed fruitfully in studying the past, obviously cannot legitimately be used as a starting point in an inquiry as to what future public economic policy should be. Nevertheless, a number of economists working in the field of economic growth have done this very thing.

The forces which determine the magnitude, the timing, and the nature of public receipts and expenditures do not operate in the same fashion as the forces determining the magnitude, the timing, and the nature of receipts and expenditures in the private sector of our economy. That broad fiscal policy (i.e., policy relating to the magnitude of government expenditures and whether they should be accompanied by a balanced or an unbalanced budget) may influence the appropriate rate

of economic growth has already been recognized by some economists.<sup>17</sup> It is to be hoped that others will give more explicit consideration to this fact.

The influence of public policy on the appropriate rate of growth is not limited to the effects of fiscal policy alone. Suppose that several alternative policies with respect to the nature and purpose of public expenditures are being considered. Each of them might conceivably be consistent with an overall rate of economic growth which, at least on paper, would satisfy the criteria specified, but each of them might result in a different pattern of resource utilization and a different input-output relationship. Thus each of them might be consistent with a different appropriate rate of economic growth. The probability of the existence of a single or unique appropriate rate of growth is further decreased if we take into account the variations which might occur with respect to the timing and financing of public expenditures, since the timing and financing of public expenditures, too, will influence the pattern of resource utilization and the input-output relationship in the private sector of the economy.

## VI.

In one sense, this is encouraging. For if there is more than one rate of growth appropriate to any period in that it satisfies the two criteria suggested, are we not more likely to achieve and maintain an appropriate

<sup>16</sup> As in much of the cited works of Harrod, Domar, and Deusenberry.

<sup>17</sup> See, e.g., John G. Gurley, "Fiscal Policy in a Growing Economy," *Journal of Political Economy*, Vol. 61 (December, 1953), pp. 523 ff.

rate of growth than we would be if there were a single uniquely appropriate rate? On the basis of probability alone, the answer appears to be yes. But another aspect of the matter must be considered before this answer is accepted. If it is true that there may be more than one rate of growth appropriate to any period, it is also true that a rate of growth which is appropriate when achieved through or accompanied by certain patterns of resource utilization and certain input-output relationships may be inappropriate when achieved through or accompanied by other patterns of resource utilization and other input-output relationships.

In a very real sense, then, the question of whether we can achieve and maintain an appropriate rate of growth is not quite as important as it is generally assumed to be. A rate of growth, no matter how carefully we define it or determine it, does not furnish us with a satisfactory comprehensive guide for policy-making purposes.

This conclusion is reinforced by another consideration. While it is true that government policy may not only influence the rate of economic growth directly by its effect on the level of production but also indirectly by its effect on the character of production and the production function, it is also true that certain aggregates of goods and services are more desirable than others, even though their monetary value may be the same, and that certain methods of achieving any specified aggregate value may be more desirable than others. Those who are concerned with public economic policy should, therefore, consider not merely the rate

of economic growth but also the composition of our growing output and the manner in which it is achieved.

This is a difficult task. The number of variables which must be considered simultaneously is large; and since we have a "mixed economy" (neither a pure market economy on the one hand nor a completely planned economy on the other), neither the usual tools of market analysis nor the usual tools of central economic planning are adequate. It is apparent that there is a need here for basic theoretical work.

The tools of economic analysis, however, no matter how greatly they are improved, will not in themselves be sufficient for this task. Important though they may be, of even more basic importance are the value judgments which must be made. Technical advances, no matter how brilliant, cannot obviate the necessity of making value judgments pertaining to the desirability of the various possible methods of utilizing our resources or to the desirability of the various product mixes which may result. Public officials cannot avoid the necessity of forming such value judgments, nor should they seek to do so. In a free society such as ours, however, the value judgments of public officials are not the sole determinants of the nature of economic developments. Each of us, by our behavior in the market place, at the polls, and in other spheres of activity, can participate to some extent in the process of making the important value judgments which determine the future course of events. Widespread recognition of this fact should stimulate us to participate more intelligently and more actively.

## Books Reviewed

*The Allocation of Economic Resources: Essays in Honor of Bernard Francis Haley.* By Moses Abramovitz and others (Stanford: Stanford University Press, 1959. Pp. vii, 244. \$5.00)

This is a *Festschrift* comprising thirteen essays by colleagues, former colleagues, and former students presented to the distinguished editor of the *American Economic Review* on his sixtieth birthday.

Standard operating procedure for *Festschriften* is to cover the *embarcadero* (Californian for waterfront) of subject, length, and quality. This is no exception. A reviewer is expected to guess, biased by the limited range of his own interests, which pieces may anticipate the greatest longevity.

My chips are concentrated on Melvin Reder's "Alternative Theories of Labor's Share." There are at least three groups of aggregative distribution theories running around loose and avoiding mutual confrontation. Reder provides this confrontation and reaches a tentative reconciliation of marginal productivity and Keynes-Kaldor explanations via shifts between wage earning and self-employment. I should myself wonder whether the latter

theories, derived as they are from algebraic identities rather than equilibrium conditions, might not represent consequences rather than causes of a distribution itself determined along classical lines.

Students of growth will find two interesting papers here: a literary one by Tibor Scitovsky on concentrated versus balanced growth and a "programming" one by Hollis Chenery on "The Interdependence of Investment Decisions." Scitovsky comes out most strongly for a large and variegated developing unit, in which the rival criteria are most nearly reconcilable. This advice is not as empty as it sounds, for such small countries as can unite into customs unions, common markets, regional blocs, and so on. Chenery shows, with figures representative of Latin American iron and steel, that technical interdependence effects are quantitatively important even without allowing for repercussions through aggregate income changes. So far as I understand his analysis, however, he does not allow for the offsetting effects of price changes for other inputs. These may be quite serious even in countries with "unlimited supplies of labor." Unlimited supplies seldom extend to the relevant

skills, which will in turn rise sharply in price when an overambitious investment program is undertaken.

Armen Alchian and Kenneth Arrow contribute useful papers in price theory. Alchian proposes a reformulation of the theory of cost and supply, by which both costs and profits are taken as present values of flows or programs over time. He shows that this reformulation can eliminate, *inter alia*, arbitrary distinctions between short- and long-run theorizing. Arrow, in a rare (for Arrow) and welcome publication completely intelligible to the nonmathematician, suggests a theory of administered price and price rigidity as providing primarily a cover for monopolistic price discrimination.

Straddling two fields of national income and welfare economics, Moses Abramovitz marshals the argument that "we must be highly skeptical of the view that long-term changes in the rate of growth of welfare can be gauged even roughly from changes in the rate of growth of output" (p. 21). This is a thorough beating of a half-dead horse, which might by now have expired completely but for the prestige of Simon Kuznets, father of national income statistics, on the other side. More weight might also be given to the correlations (in both time and geographical series) between income and such other welfare indicators as life expectancy at birth and the proportion of income available for expenditures other than food.

Paul Baran, E. S. Shaw, and Lorie Tarshis have provided foretastes of things to come. Shaw's monetary policy proposals are unfortunately no longer

things to come, having appeared ready at greater length than here in the American Assembly volume on *Military Policy*. This shorter piece is, however, even better written. Baran gives us a précis of a forthcoming restatement and reinterpretation of underconsumptionism—less a threat *in esse* than *posse*, should we ever abstain from military and civilian waste. Tarshis' piece on "Factor Inputs and International Price Comparisons" is likewise a summary of a longer report for the RAND Corporation which should help lay the ghost of the so-called Leontief paradigm in international trade (which makes the United States a cheap-labor country).

Some of the other four essays did not "communicate" to me and others seemed wrongheaded for various reasons, but these nine will suffice to rank this volume well above what one fears in a *Festschrift*. It may have more than its share of first drafts and condensations, but it is no batch of rejectable slips.

M. BRONFENBRENNER  
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*Monopoly in Economics and Law.* H. Donald Dewey (Chicago: Rand McNally, 1959. Pp. 328. \$5.75)

Professor Dewey possesses that attribute rare among economists, literary style. A reviewer is tempted, consequently, to use all his space in quoting the author. For example:

Monopoly is often the unavoidable by-product of a measure designed to attain a goal of undoubted worth. Thus we must rely upon the medical profession to prescribe the qualifications of persons who would practice as surgeons and physicians.

lest we be unnecessarily punctured, bled, and drugged; we cannot be sure that the members of the profession will not abuse this power by imposing more restrictions on potential competitors than are needed for our reasonable protection. (p. 2)

In just over three hundred pages the author has given us a concise picture of the theoretical, empirical, and legal aspects of the monopoly problem. Nevertheless, the book is in no sense a casual survey, but represents the result of a thorough and careful research project. From the materials examined by the author, a book three times the length of this one might have been constructed. Professor Dewey has performed a real service in reducing the material to manageable proportions and in doing so in very readable fashion.

Professor Dewey's approach is that of a reasonable man who is considering a problem to which there is not likely to be a final, "correct" solution. He wastes no space on false nostalgia for an atomistic economic system. He recognizes that while ours may be a government of laws, not of men, still, laws are made by men, and the judges who must decide cases are likewise human.

The author, however, is no Candide and his view of the world is not that everything turns out for the best. He holds opinions and expresses them succinctly. Thus:

The author would prefer to see the McGuire Act repealed, the courts directed to refrain from enforcing resale price maintenance contracts, and the manufacturer given free rein to exercise as much control over resale price as he could obtain by threats, boycotts, and cajolery. A revision of the law in this direction would have the merit of withdrawing the patron-

age of the state from resale price maintenance while, at the same time, it would relieve the anti-trust agencies of a difficult enforcement problem that is not worth solving. (p. 211)

Whether or not one agrees with Professor Dewey, he can be in no doubt as to where the author stands.

Professor Dewey's treatment of the legal aspects of monopoly reveals a feeling for the law and for the difficult tasks the courts have been given in the area of monopoly legislation that should appeal to members of the legal profession.

This book contains two departures from the pattern of most works in this area. Labor monopoly as represented by strong unions is treated frankly as such and one whole chapter is devoted to monopoly policy in Great Britain.

While Professor Dewey's book will be required reading for economists and attorneys who specialize in monopoly problems, it can be read with profit by other members of these professions whose chief interests lie elsewhere, not only for its concise statement of the problem and the current state of public policy in the area, but also for a lesson both economists and attorneys badly need to learn — that skillful use of the English language can make complex matters clear and interesting even to those with a minimum background in the area under study. Dullness is no synonym for scholarship.

ROYALL BRANDIS  
University of Illinois

*Modern Science and the Human Fertility Problem.* By Richard L. Meier

(New York: John Wiley, 1959.  
Pp. xiii, 263. \$5.95)

Here we have another book by a person who was trained as a natural scientist and who is concerned about the application of results of natural science research to the solution of social problems. The author is somewhat more experienced at this than most; but the book displays many of the flaws of such work: naïveté and excessive technocracy in the formulation of social policy, and an unwillingness to apply ordinarily expected standards of scholarship to what should be treated as a scholarly work in the social sciences.

However, the greater experience of the author in the application of natural science to social problems yields some dividends. The sophisticated formulation of problems, the understanding of the language of the social scientist (perhaps too glib an understanding), and the obvious breadth of study in the social sciences make the book worth reading carefully. On the other hand, the fashion in which reference is made to other work is not helpful. It makes difficult the job of checking the author's statements because it consists, to such a great degree, of unannotated name-dropping. This reader feels that a variety of gamesmanship is being practiced — more so when reference is made to works in the social sciences than elsewhere, although this may simply reflect the reviewer's greater confidence when speaking in a social science context.

There seems to be some ground for confusion about just why the author wrote the book. The title and most of the subject matter suggest the quite

obvious concern: given the development of a reliable, cheap, oral contraceptive in the near future, how difficult or expensive will it be to assure sufficient use of it to alleviate the overpopulation problem in those underdeveloped countries which labor under this burden? However, if one takes seriously some remarks of the author, he is really concerned with trying to establish a science of technologistics or technicology (neologisms mine). If this is so, his experiment must be counted as a failure, the reasons of poor organization — the strategy of the experiment is obscure and the criteria for success or failure are unstated.

Turning to the more obvious concern of the book, we find that Meier makes a plausible, though not well-documented case, for the conclusion that the cost per prevented birth is likely to be high. Cost estimates are based on Puerto Rican experience. Successful application of contraceptives requires that regular administration of the contraceptive be carried on over a long period of time. Consequently, costs will probably be so high, concludes Meier, as to make birth control no great bargain as an investment for an underdeveloped country.

Moreover, the author points out what has occurred in the United States. After an initial acceptance of contraception, birth rates fell but subsequently rose, and the effect of contraception was merely to permit greater control over the time-incidence of pregnancy. Meier suggests that this may be the general experience.

The question might be raised (Meier does not do so) whether the responsi-

to general availability and acceptance of contraception might be different in underdeveloped countries from what it is in the United States. Birth-rate reduction under contraception came in the United States at a time when it was, or almost was, the wealthiest nation in the world, both in aggregate and per capita terms. Moreover, the use of contraceptive devices has not visibly caused changes in the material circumstances of individual inhabitants of the United States. In underdeveloped countries we might find that there would be visible consequences of this sort and that one result for the nation as a whole would be a narrowing of the gap between it and the developed countries. This might delay the arrival of the time when birth-rate reduction is set aside for birth-incidence control.

This objection aside, Meier discusses the prospects of inducing certain attitudinal changes among part of the population. These changes would result in the voluntary decision, by some of the population, to remain infertile. His approach to the matter is rather naïve and technocratic, as is much of his discussion of the workings of society. There is a feeling of confident manipulation expressed whenever possible policy is discussed, all of which leads one to the conclusion that it is not the real world, present, past, or future, which is being considered.

So far as this reader is concerned, the development of new products by natural science seems as likely to create more problems for the social scientist as to solve problems faced by him. The problems of society still involve understanding of society and its components,

human beings. The oppressive thought is omnipresent, while reading this book, that this lesson must yet be learned by the author.

Of some interest to the technically competent reader are the appendixes which reproduce recent research reports on new contraceptive substances.

ROBERT J. WOLFSON

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*International Resources and National Policy.* By Olin T. Mouzon (New York: Harper, 1959. Pp. xiv, 752. \$7.50)

The viewpoint of the author is most laudable. He believes that "there is a real need in the United States for economics, and all other interested disciplines which have a contribution to make, to join this interdisciplinary science in international relations which has as its major aim the development of a strategy of security." The book is organized around problems arising from the utilization of resources and policies which the United States government has followed or, in the author's view, should follow to solve such problems.

The book is divided into two major parts. The first of these deals with "Strength and Production Potentials" and analyzes various kinds of resources — natural, capital, and human — which are or may be available to the United States. Each section within this part presents facts about the availability of particular resources, discusses past United States policies with respect to the resources, and usually offers recommendations as to future policy. The second part discusses the "Strategy of

Security" and includes a brief treatment of several theories of geopolitics as well as a fairly extensive treatment of United States military and economic security measures since World War II.

The first part of the title of the book tends to foster a most unfortunate misconception. The real problem, and one which makes necessary much of the discussion in the book, is that there are no *international* resources. If it were not necessary to view the problems of resource distribution against the background of a world divided into national states, policy problems would be much easier to solve. It is the very fact that resources are held, and sometimes fiercely held, by national states that creates problems of national policy for a particular state. The vision of a world eager to supply materials to the United States on terms acceptable to us does not accord with reports in our daily newspapers.

The second part of the title and the discussion growing out of it fosters another misconception. The implication is that the government of the United States does, in fact, have a consistent and reasoned policy with regard to the procurement and utilization of most kinds of resources. Close examination of past governmental actions, with respect to many mineral resources in particular, will reveal the actions to be more often the expression of a current balance of power or prosperity between producers and consumers of the minerals than an expression of a long-run policy. The movement of copper into and out of the national stockpile, for example, certainly reflects demands of producers and consumers more closely

than it reflects changing decisions of the requirements of copper for national security.

This book represents a tremendous compilation of facts and figures about problems of interest to teachers in many disciplines. As such it will probably be used as the source of information on which a great many lectures will be based. It was designed for use as a textbook, but it is difficult to envision the type of course for which it would be used. Too little attention is given to the consequences of location to satisfy a geographer. The spatial or area aspects (geography) are not additions to a list of resources but rather reflect a point of view which must be applied to all resources. The economic discussion is usually couched in the simple term of creating "utilities." The political scientist will find that discussions of governmental action are not always accompanied by adequate treatment of either the motivation behind the action or the organizational structure by which it was accomplished. The book might be most useful in an interdepartmental offering where it could be supplemented by lectures from experts in the various fields.

Any attempt to summarize and focus attention on governmental actions with regard to resources and security (whether or not these actions represent a recognized policy) is bound to be useful. The author brings to this book a long experience in teaching and research on the problems of resource utilization and a background of service in advising various agencies and branches of the government. Many sections of the book reflect this long exper-

rience and his intimate knowledge of past governmental activities in the resource field. Many of the author's recommendations as to the most effective policy for this country to follow in the future will be applauded by those who are concerned with the adequacy of the resources available to us.

Policy recommendations which are intended to influence future action, however, must be clear and unequivocal. In some cases the author recommends measures which, although all may be desirable in themselves, seem to be mutually contradictory.

Despite its shortcomings, the book will be a useful addition to the libraries of those concerned with resource utilization and national security. The excellent factual summaries of past governmental activities in these fields will be valuable for reference. It is regrettable that the author felt the need of coining another hybrid monstrosity — *geoecopolitics* — to describe his field of interest.

HOWARD G. ROEPKE

University of Illinois

*Strategy and Market Structure: Competition, Oligopoly, and the Theory of Games.* By Martin Shubik (New York: John Wiley, 1959. Pp. xviii, 387. \$8.00)

In this book the author sets for himself the task of laying the groundwork for "a unified approach to the various theories of competition and markets." The unifying instrument is sought in the methods of game theory. At the very least, the book deserves to rank as a worthy sequel to the work of Von

Neumann and Morgenstern. Although their famous volume bears the title *Theory of Games and Economic Behavior*, it really has little to say on the relevance of game theory to the business world.

One has the impression that if Shubik cannot convince economists that game theory constitutes a major revision of economic theory, nobody else can. Every effort is made to show how game theory can illuminate problems of business tactics and economic policy and Shubik's exposition is about as lucid as the subject matter permits. While the work of Von Neumann and Morgenstern provides the point of departure, Shubik incorporates into his analysis many variables which hitherto have not been viewed as a part of game theory, notably inventories, interest rates, corporate structure, product differentiation, and costs of information and liquidation. (The second part of the book carries the accurate subtitle, "Mathematical Institutional Economics.")

Shubik's innovations in game theory have the merit of showing that when the instrument is so refashioned, it produces solutions to problems of duopoly and oligopoly that are as "realistic" as — and are often very near — the solutions yielded by analyses based on other assumptions. The price exacted for this demonstration, however, is a loss of intelligibility. The incorporation of so many additional variables into game theory makes for an elaborate notation that will not stay fixed in memory from one page to the next; and many of the numerical examples used by Shubik have required

a computing machine for their construction.

For the professional economist, a careful reading of this work will provide exacting and, in general, rewarding mental exercise. (He should first equip himself with several good math books and plenty of scratch paper.) Classic problems in the theory of oligopoly are rigorously formulated, neatly solved, and the results compared. Moreover, the book contains many sophisticated comments on the postulates of economic theory, e.g. the meaning — or lack of meaning — of "perfect knowledge" in the market.

Nevertheless, the reader must not expect to be rewarded with any radically new perspective on the business world. Shubik's methods lead mainly to conclusions that are taken for granted. Thus, "when there are very few players in a market with a high structure of overhead, a considerable financial barrier to entry or exit (high liquidation losses), and a large cross-elasticity of demand between the product lines of the competitors, then the market revenues of one player will be highly sensitive to the actions of any competitor" (p. 283).

In the concluding chapter the observations offered on the place of economic analysis in antitrust policy are eminently sound, e.g. the admonition that "since we have very little information on the relative efficiencies of different firms in various industries, we do not know in general how much the growth of different-sized firms has been shaped by technology, manufacturing efficiency, finance, or corporate structure" (p. 335). Here again Shubik's

reflections suggest not the promise his approach so much as his own good sense.

This reviewer believes that Shubik set an impossible task for himself in his efforts to lay the groundwork for the theory of oligopoly given the multitude of activities that the profit motive inspires; hence, he cannot complain that Shubik does not achieve the avowed goal. It is enough that the book perceptibly enlarges our understanding of the business world.

DONALD DEWEY

Duke University

*Income Tax Differentials. A Symposium.* (Princeton: Tax Institute, 1958. Pp. vii, 258. \$6.00)

This volume contains the papers presented at a Tax Institute symposium held in November, 1957, on the question of the different treatment of various types of income in the present federal income tax structure and related problems of income taxation, such as the effects of income taxes on the economy and appropriate methods of tax reform. Substantial reliance was placed by the contributors on the papers which appeared in the Joint Committee on the Economic Report volume, *Federal Tax Policy for Economic Growth and Stability* (1955).

As is usual in these Tax Institute volumes, the papers vary widely in quality, extent of contribution, and points of view; and the discussions at the end of each session emphasize still more the divergent attitudes. Much of the material inevitably covers old ground and repeats arguments heard

many times before. However, several of the papers warrant mention. Stanley Surrey provides an excellent review of the various sources of differential treatment in the tax structure, and the reasons why these arose. The Schulman paper on the techniques employed to reduce tax burden on corporate executives is one of the most enlightening. The Bierman paper discusses in detail the special treatment of inventors and artists. Henle notes some of the evils of present differential treatment from labor's point of view, and stresses the more complete collection of tax from workers than from other income receivers. Robert Eisner's paper analyzes the appropriate role of investment in the economy and produces conclusions for tax policy relating to investment which contrast sharply with usual points of view on this question. Particularly, he questions the effectiveness of policies of reducing taxes on higher income groups in stimulating investment, and he raises serious questions about the general goal of seeking to raise investment levels.

One of the most disappointing papers was that of Dan T. Smith, at the time the Treasury's chief tax policy planner. He attacks what he calls "theoretical" conceptions of income and argues that "A law that would be, as the saying goes, intellectually satisfying to the theorist . . . would . . .

seem unfair to most practical people" (p. 3). Unfortunately, Smith fails to recognize the significance of developing a logical concept of income, even though in practice administrative considerations preclude exact utilization of the concept. In his criticism of the "theorists," he caricatures their proposals; no one has seriously suggested taxation of capital gains on an accrual basis, as he claims.

Through many of the papers runs the common thread of the need for lessened differential treatment, but in numerous cases the basic obstacle to uniformity rears its head: the contributor wants uniformity so long as it does not injure the vested interests whose point of view he is presenting. For example, Davidson of the NAM insists that capital gains are not income at all. Likewise in many papers there is a tendency to claim dire effects from present income tax levels without adequate evidence and in complete disregard of the facts of high levels of employment and economic growth in the last two decades, despite the taxes. Certainly there is urgent need for federal tax reform, but these must be considered in terms of a reasonable appraisal of the over-all effects of the present structure.

JOHN F. DUE

University of Illinois

## Books Received

Airov, Joseph. *The Location of the Synthetic-Fiber Industry*. Cambridge: Technology Press of the Massachusetts Institute of Technology, and New York: John Wiley, 1959. Pp. xii, 203. \$9.75.

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